

<b>Question Paper Name :</b>	87 Computer Science and Applications 11th Nov 2020 Shift 2
<b>Subject Name :</b>	87 Computer Science and Applications
<b>Creation Date :</b>	2020-11-11 19:45:56
<b>Duration :</b>	180
<b>Number of Questions :</b>	134
<b>Total Marks :</b>	300
<b>Display Marks:</b>	Yes

## 87 Computer Science and Applications

<b>Group Number :</b>	1
<b>Group Id :</b>	53622827
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	180
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	300
<b>Is this Group for Examiner? :</b>	No

## PART I General Paper

<b>Section Id :</b>	53622857
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	42
<b>Number of Questions to be attempted :</b>	42
<b>Section Marks :</b>	100
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	536228167
<b>Question Shuffling Allowed :</b>	Yes

**Question Id : 5362284236 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No**  
**Question Numbers : (1 to 5)**  
**Question Label : Comprehension**

The Following table shows total number of students in the Department of the Institute along with percentage of Females and Male students. Answer questions 1 to 5 based on the data given below :

Department	Total No. of Students	Percentage of female	Percentage of Male
Computer	840	45	55
Civil	220	35	65
Mech.	900	23	77
Electrical	360	65	35
Electronics	450	44	56
Mining	540	40	60

#### Sub questions

Question Number : 1 Question Id : 5362284237 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the respective ratio of the number of females in Mechanical Department to the number of females in Electronics Department?

- (1) 4 : 3 (2) 23 : 22  
(3) 24 : 21 (4) 23 : 21

Options :

- 53622816501, 1  
53622816502, 2  
53622816503, 3  
53622816504, 4

Question Number : 2 Question Id : 5362284238 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the total number of students in all the Departments?

- (1) 2210 (2) 3210  
(3) 3400 (4) 3310

Options :

- 53622816505, 1  
53622816506, 2  
53622816507, 3  
53622816508, 4

Question Number : 3 Question Id : 5362284239 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the total number of male students in Computer and Mining Department together?

- (1) 266 (2) 886  
(3) 786 (4) 686

**Options :**

53622816509. 1

53622816510. 2

53622816511. 3

53622816512. 4

**Question Number : 4 Question Id : 5362284240 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

What is the ratio of the number of females in Civil and Electrical departments together to the number of males in the same Departments together?

(1) 311 : 270

(2) 329 : 261

(3) 411 : 469

(4) 311 : 269

**Options :**

53622816513. 1

53622816514. 2

53622816515. 3

53622816516. 4

**Question Number : 5 Question Id : 5362284241 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

What is the average percentage of female students in the whole Institute?

(1) 42.0%

(2) 41.0%

(3) 43.0%

(4) 41.5%

**Options :**

53622816517. 1

53622816518. 2

53622816519. 3

53622816520. 4

**Question Id : 5362284236 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No**

**Question Numbers : (1 to 5)**

**Question Label : Comprehension**

निम्नांकित तालिका में किसी संस्थान के विभागों में विद्यार्थियों की कुल संख्या छात्राओं और छात्रों के प्रतिशत के साथ दर्शाई गई है। नीचे दिए गए आकड़ों के आधार पर प्रश्नों 1 – 5 के उत्तर दें :

विभाग	विद्यार्थियों की कुल संख्या	छात्राओं का प्रतिशत	छात्रों का प्रतिशत
कंप्यूटर	840	45	55
सिविल	220	35	65
मेकैनिकल	900	23	77
इलेक्ट्रिकल	360	65	35
इलेक्ट्रॉनिक्स	450	44	56
माइनिंग	640	40	60

#### Sub questions

Question Number : 1 Question Id : 5362284237 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

मेकैनिकल विभाग में छात्राओं की संख्या का इलेक्ट्रॉनिक्स विभाग में छात्राओं की संख्या के साथ क्रमिक अनुपात क्या है?

- (1) 4 : 8 (2) 23 : 22  
(3) 24 : 21 (4) 23 : 21

Options :

53622816501. 1  
53622816502. 2  
53622816503. 3  
53622816504. 4

Question Number : 2 Question Id : 5362284238 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सभी विभागों में विद्यार्थियों की कुल संख्या कितनी है?

- (1) 2210 (2) 3210  
(3) 3400 (4) 3310

Options :

53622816505. 1  
53622816506. 2  
53622816507. 3  
53622816508. 4

Question Number : 3 Question Id : 5362284239 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

कंप्यूटर और माइनिंग विभाग को मिलाकर छात्रों की कुल संख्या कितनी है?



Kumar Education

Downloaded FREE from KumarEdu.com

(1) 208

(2) 888

(3) 786

(4) 686

Options :

53622816509.1

53622816510.2

53622816511.3

53622816512.4

Question Number : 4 Question Id : 5362284240 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सिविल और इलेक्ट्रिकल विभागों को मिलाकर छात्रों की संख्या और जूनी विभागों को मिलाकर छात्रों की संख्या के बीच अनुपात क्या है?

(1) 311 : 270

(2) 329 : 261

(3) 411 : 469

(4) 311 : 269

Options :

53622816513.1

53622816514.2

53622816515.3

53622816516.4

Question Number : 5 Question Id : 5362284241 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

घरे संस्थान में छात्रों का औसत प्रतिशत कितना है?

(1) 42.0%

(2) 41.0%

(3) 43.0%

(4) 41.5%

Options :

53622816517.1

53622816518.2

53622816519.3

53622816520.4

Sub-Section Number :

2

Sub-Section Id :

536228168

Question Shuffling Allowed :

Yes

Question Number : 6 Question Id : 5362284242 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Kumar Education

Downloaded FREE from KumarEdu.com



Which of the following teacher competency belongs to the domain of personality and attitude?

- |  |                                       |
|--|---------------------------------------|
| (1) Locus of control and self-efficacy | (2) Managing and Monitoring           |
| (3) Planning and instructing           | (4) Personalising and contextualizing |

Options :

- 53622816521, 1  
53622816522, 2  
53622816523, 3  
53622816524, 4

Question Number : 6 Question Id : 5362284242 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन-कौन सी अध्यापक-प्रवीणता व्यक्तित्व और अभिवृत्ति के अनुश्रेष्ठ से संबंधित हैं?

- |   |                           |
|---|---------------------------|
| (1) नियंत्रण और आत्म-सामर्थ्य की संस्थिति | (2) प्रबंधन और अनुश्रवण   |
| (3) नियोजन और अनुदेशन                     | (4) निजत्व और संदर्भोक्ति |

Options :

- 53622816521, 1  
53622816522, 2  
53622816523, 3  
53622816524, 4

Question Number : 7 Question Id : 5362284243 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Identify the teaching strategies which are employed during indirect instruction :

- (A) Emphasizing direct and indirect exemplars
- (B) Presenting the stimulus material
- (C) Inquiry based question-answer session
- (D) Presenting, asking and providing feed back
- (E) Promoting problem solving approach

Choose the correct answer from the options given below :

- |                           |                           |
|---------------------------|---------------------------|
| (1) (A), (B) and (C) only | (2) (B), (C) and (D) only |
| (3) (C), (D) and (E) only | (4) (A), (C) and (E) only |

Options :

- 53622816525, 1  
53622816526, 2  
53622816527, 3  
53622816528, 4

Question Number : 7 Question Id : 5362284243 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

उन शिक्षण कार्यनीतियों की पहचान कीजिए जो अप्रत्यक्ष अनुदेश में अपनायी जाती है ?

- (A) प्रत्यक्ष और परोक्ष दुष्टान्तों पर बल देना
- (B) उद्दीपन सामग्री प्रस्तुत करना
- (C) पृष्ठताक आधारित प्रश्न-उत्तर सत्र
- (D) प्रस्तुतिकरण, प्रश्न पृष्ठता एवं प्रतिपुष्टि प्रदान करना
- (E) समस्या-समाधान उपायों को बढ़ावा देना

नीचे दिये गये विकल्पों में से सही उत्तर चुनिये :

- |                          |                          |
|--------------------------|--------------------------|
| (1) केवल (A), (B) और (C) | (2) केवल (B), (C) और (D) |
| (3) केवल (C), (D) और (E) | (4) केवल (A), (C) और (E) |

Options :

53622816525. 1

53622816526. 2

53622816527. 3

53622816528. 4

Question Number : 8 Question Id : 5362284244 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In which level of teaching, the teacher's role is more active rather than being interactive?

- |                      |                                  |
|----------------------|----------------------------------|
| (1) Memory level     | (2) Understanding level          |
| (3) Reflective level | (4) Autonomous development level |

Options :

53622816529. 1

53622816530. 2

53622816531. 3

53622816532. 4

Question Number : 8 Question Id : 5362284244 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

शिक्षण के कौन-से स्तर पर, अध्यापक की भूमिका अन्तः क्रियात्मक होने के बजाय अधिक सक्रिय होती है ?

- |                       |                         |
|-----------------------|-------------------------|
| (1) स्मृति स्तर       | (2) अवबोध स्तर          |
| (3) विमर्श-चिंतन स्तर | (4) स्वायत्त विकास स्तर |

Options :

53622816529, 1  
53622816530, 2  
53622816531, 3  
53622816532, 4

Question Number : 9 Question Id : 5362284245 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II :

List I	List II
(Scales of measurement)	(Description of properties)
(A) Nominal	(I) Classification and order
(B) Ordinal	(II) Classification
(C) Interval	(III) Classification, order and equal units
(D) Ratio	(IV) Classification, order, equal units and Absolute Zero

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (2) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (3) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (4) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

Options :

53622816533, 1  
53622816534, 2  
53622816535, 3  
53622816536, 4

Question Number : 9 Question Id : 5362284245 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



सूची-I

(माप का पैमाना)

- (A) नामित
- (B) क्रमिक
- (C) अनुराल
- (D) अनुपात

सूची-II

(विशेषताओं का चित्रण)

- (I) वर्गीकरण और क्रम
- (II) वर्गीकरण
- (III) वर्गीकरण क्रम और इकाइयों की समानता
- (IV) वर्गीकरण, क्रम, इकाइयों की समानता और निरपेक्ष शून्य

नीचे दिये गये विकल्पों में से सही उत्तर चुनिए :

- (1) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (2) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (3) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (4) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

Options :

- 53622816533. 1
- 53622816534. 2
- 53622816535. 3
- 53622816536. 4

Question Number : 10 Question Id : 5362284246 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements :

Statement I : Indirect instruction is an approach to teaching and learning in which the process is inquiry, the content involves concept and the context is a problem.

Statement II : In NRT test data tell us about a student's level of proficiency in mastery of some skills or set of skills.

In the light of the above statements, choose the correct answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

- 53622816537. 1
- 53622816538. 2

**Question Number : 10 Question Id : 5362284246 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**  
**Correct Marks : 2 Wrong Marks : 0**

नीचे दो कथन दिए गए हैं :

- कथन (I) : अप्रत्यक्ष अनुदेशन शिक्षण और अधिगम का वह उपप्लव है जिसमें प्रक्रिया प्रकृताङ्क है, विषय-वस्तु सप्रत्यय आधारित है और संदर्भ कोई समस्या होती है।
- कथन (II) : मानक संदर्भित परीक्षण में, परीक्षण के प्रदत्त विद्यार्थी की किसी प्रवीणता या प्रवीणता समुच्चय पर अर्जित अधिकार संबंधी दक्षता के स्तर बताते हैं।

उपरोक्त कथनों के आलोक में निम्नांकित विकल्पों में से सही उत्तर चुनें :

- (1) कथन I और II दोनों सही हैं।
- (2) कथन I और II दोनों गलत हैं।
- (3) कथन I सत्य है किंतु कथन II गलत है।
- (4) कथन I असत्य है किंतु कथन II सही है।

**Options :**

- 53622816537. 1
- 53622816538. 2
- 53622816539. 3
- 53622816540. 4

**Question Number : 11 Question Id : 5362284247 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**  
**Correct Marks : 2 Wrong Marks : 0**

In which of the following, there is a greater flexibility in both the methods and process of research?

- (1) Ethnography and phenomenology
- (2) Descriptive survey and impact studies
- (3) Experimental and observation based studies
- (4) Expost facto and historical studies

**Options :**

- 53622816541. 1
- 53622816542. 2
- 53622816543. 3
- 53622816544. 4

**Question Number : 11 Question Id : 5362284247 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**  
**Correct Marks : 2 Wrong Marks : 0**

निम्नलिखित में किसमें शोध की विधि तथा पाठ्यक्रम में अपेक्षाकृत अधिक नैपथ्य (समीक्षा) पाई जाती है?

- (1) राजनीति एवं इतिहासिक अध्ययन
- (2) वणनात्मक सर्वेक्षण तथा प्रभाव अध्ययन
- (3) प्रयोगात्मक एवं प्रेक्षण आधारित अध्ययन
- (4) कार्यान्तर एवं र्णितार्मिक अध्ययन

Options :

- 53622816541 1
- 53622816542 2
- 53622816543 3
- 53622816544 4

Question Number : 12 Question Id : 5362284248 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In conducting an empirical study, a researcher employs a non-parametric test for data analysis and finds that the 'statistics arrived at is significant' at 05 level. What decisions will be warranted thereafter?

- (A) Rejecting the Null hypothesis ( $H_0$ )
- (B) Accepting the Null hypothesis ( $H_0$ )
- (C) Accepting the alternate hypothesis ( $H_1$ )
- (D) Keeping the decision in abeyance
- (E) Rejecting the alternate hypothesis ( $H_1$ )

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (B) and (C) only
- (3) (D) only
- (4) (A) and (C) only

Options :

- 53622816545 1
- 53622816546 2
- 53622816547 3
- 53622816548 4

Question Number : 12 Question Id : 5362284248 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

एक रैन्डमसाइज्ड गैर-कमल गणना के तहत गणनाओं पर एक विश्लेषण है, अपरमार्मिटेड फॉलोअप का अनुपात करना है तथा यह पाता है कि 'अपेक्षाएं सकारात्मक' का मान 0.5 है। यह साक्ष्य है। इसके बाद उसे किये गए का निष्कर्ष इस आधार पर करने चाहिए?

- (A) नकारात्मक शून्य परिकल्पना का ( $H_0$ ) का परित्याग
- (B) शून्य परिकल्पना ( $H_0$ ) को स्वीकार करना
- (C) विकल्पात्मक परिकल्पना ( $H_1$ ) को स्वीकार करना
- (D) निष्कर्ष को स्थगित में रखना
- (E) विकल्पात्मक परिकल्पना ( $H_1$ ) का परित्याग

नीचे दिए गए विकल्पों में से सही उत्तर चुनिये।

- |                     |                     |
|---------------------|---------------------|
| (1) केवल (A) और (B) | (2) केवल (B) और (C) |
| (3) केवल (D)        | (4) केवल (A) और (C) |

Options :

53622816545 1

53622816546 2

53622816547 3

53622816548 4

Question Number : 13 Question Id : 5362284249 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are non-probability sampling methods?

- (A) Cluster sampling
- (B) Judgemental sampling
- (C) Systematic sampling
- (D) Snowball sampling
- (E) Quota sampling

Choose the correct answer from the options given below

- (1) (A), (B) and (C) only
- (2) (B), (D) and (E) only
- (3) (B), (C) and (D) only
- (4) (C), (D) and (E) only

Options :

53622816549 .

53622816550. 2

53622816551 3

53622816552 4

Question Number : 13 Question Id : 5362284249 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



निम्नलिखित में से कौनसी गैर मभाव्यता प्रतिदर्श प्रतिवचन विधि है ?

- (A) गुरुकुल पाठचयन
- (B) लणाय आध्यात्मिक शिक्षण
- (C) व्यवस्थित पाठचयन
- (D) स्नातकोत्तर पाठचयन
- (E) भास्परान्तक पाठचयन

नीचे दिये गये विकल्पों में से सही उत्तर चुनिये

- (1) केवल (A), (B) और (C)
- (2) केवल (B), (D) और (E)
- (3) केवल (B), (C) और (D)
- (4) केवल (C), (D) और (E)

Options :

- 53622816549 1
- 53622816550 2
- 53622816551 3
- 53622816552 4

Question Number 14 Question Id 5362284250 Question Type MCQ Option Shuffling No Is Question Mandatory No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements. One is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : In order to bridge the gap between theory and practice both fundamental and applied research formats have to be promoted.

Reason (R) : Fundamental research focuses on theory making and applied research is directed at exploring the applicability of theory in varied practical situations.

In the light of the above statements, choose the most appropriate answer from the options given below.

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A).
- (2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
- (3) (A) is correct but (R) is not correct.
- (4) (A) is not correct but (R) is correct.

Options :

53622816553 1

53622816554 2

53622816555 3

53622816556 4

Question Number : 14 Question Id : 5362284250 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

गोच में कथन दिया गया है एक को अभिकथन (A) और दूसरे को तर्क (R) कहेंगे गुणा है

अभिकथन (A) सिद्धांत और व्यवहार के बीच अंतर पाटन के लिए आधुनिक एवं व्यवहार आधारित मान्यता का प्रोत्साहन देना आवश्यक है

तर्क (R) आधुनिक मान्य सिद्धांत निर्माण पर ध्यान केंद्रित करता है और व्यवहार मान्यता के रूप में विविध व्यावहारिक स्थितियों में सिद्धांत की प्रयोज्यता पर लक्षित होता है

उपरोक्त कथनों के संदर्भ में निम्नांकित विकल्पों में सही उपयुक्त उत्तर चुनें

- (1) (A) और (R) दोनों सही हैं और (R), (A) की सही व्याख्या है।
- (2) (A) और (R) दोनों सही हैं परन्तु (R), (A) की सही व्याख्या नहीं है।
- (3) (A) सही है परन्तु (R) सही नहीं है
- (4) (A) सही नहीं है परन्तु (R) सही है

Options :

- 53622816553 1
- 53622816554 2
- 53622816555 3
- 53622816556 4

Question Number : 15 Question Id : 5362284251 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I . Qualitative research is an umbrella term to refer to various research strategies that share certain characteristics. The data collected have been termed 'soft' i.e. rich in description.

Statement II Quantitative research is mainly hypothetico deductive and employs mostly statistical techniques for data analysis.

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

53622816557 1

53622816558 2

53622816559 3

53622816560 4

Question Number : 15 Question Id : 5362284251 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

नाच दा कथन दिय गए हे

कथन (I) गूणवत्तात्मक आधे एकवचनवाक्य पद है, जिसका तात्पर्य से विविध आधे गणनीयता से है, जो किही विवक्षित आधे का सूचक करती है। यथाहिन प्रदत्त का सफर सेम लिया गया है अर्थात व विवक्षित से पचता जाती है।

कथन (II) परिमाणवाक्य आधे प्रमुखतः परिकल्पनात्मक सिगमनात्मक प्रयुक्त का जान से तथा प्रदत्त विवक्षित हन् अधिकतर साहित्यकीय विधिया का अनुप्रयोग करता है।

उपर्युक्त कथनों के आलाक में निम्नांकित विकल्पों में से सर्वाधिक उपयुक्त उत्तर चुन

- (1) कथन I और II दोनों सही हैं।
- (2) कथन I और II दोनों सही नहीं हैं।
- (3) कथन I सत्य है किन्तु कथन II गलत है।
- (4) कथन I असत्य है, किन्तु कथन II सही है।

Options :

- 53622816557 1  
53622816558 2  
53622816559 3  
53622816560 4

Question Number : 16 Question Id : 5362284252 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is considered as an effective form of verbal communication?

- |                                |                  |
|--------------------------------|------------------|
| (1) Story telling              | (2) Sloganeering |
| (3) Use of high pitch of voice | (4) Monologues   |

Options :

- 53622816561 1  
53622816562 2  
53622816563 3  
53622816564 4

Question Number : 16 Question Id : 5362284252 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



निम्नलिखित में से किस मौखिक सम्प्रश्न का प्रभावी रूप माना जाता है /

- |                                  |                |
|----------------------------------|----------------|
| (1) कहानी सुनाना                 | (2) नारे लगाना |
| (3) ध्वनि के उच्च स्वर का प्रयोग | (4) एकालाप     |

Options :

53622816561 .

53622816562 2

53622816563 3

53622816564 4

Question Number : 17 Question Id : 5362284253 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are useful in positive components of classroom communication?

- (A) Restrictive actions
- (B) Empathy
- (C) Punctuality
- (D) Follow up
- (E) Scattered reflections

Choose the most appropriate answer from the options given below .

- |                        |                        |
|------------------------|------------------------|
| (1) (A), (B), (C) only | (2) (B), (C), (D) only |
| (3) (C), (D), (E) only | (4) (A), (D), (E) only |

Options :

53622816565 .

53622816566 2

53622816567 3

53622816568 4

Question Number : 17 Question Id : 5362284253 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

कक्षा सम्पन्न के सक्रियतात्मक शक्तों में निम्नलिखित में से कौन से अवयव हैं?

- (A) प्रतिबोधनमय प्रत्यक्ष
- (B) चतुर्भुज
- (C) समयनिष्ठा
- (D) अनवरत
- (E) प्रसंगित विमर्श

नीचे दिए गए विकल्पों में से सही उत्तर चुनिये

- (1) केवल (A), (B) और (C)
- (2) केवल (B), (C) और (D)
- (3) केवल (C), (D) और (E)
- (4) केवल (A), (D) और (E)

Options :

- 53622816565 1
- 53622816566 2
- 53622816567 3
- 53622816568 4

Question Number : 18 Question Id : 5362284254 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I Interactive and multimedia systems provide for a new culture of teaching and learning.

Statement II Virtual classrooms convert students into senseless humanoids

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

- 53622816569 .

53622816570 2

53622816571 3

53622816572 4

Question Number : 18 Question Id : 5362284254 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

नीचे दोन कथन दिए गए हैं

कथन (I) अन्यान्यक्रिया तथा यन्त्रोद्भिदा गुणवन्ती निष्पन्न एवं अश्विगण की रई गणकृति की व्यवस्था करती है

कथन (II) आभासी कक्षण विद्यार्थी का भावनाविर्भावन मानव के रूप में परिवर्तित करती है

उपरोक्त कथनों के आलाप में निम्नांकित विकल्पों में से सही उत्तर चुन

(1) कथन I और II दोनों सही हैं

(2) कथन I और II दोनों गलत हैं ।

(3) कथन I सत्य है किन्तु कथन II गलत है

(4) कथन I असत्य है किन्तु कथन II सही है ।

Options :

53622816569 .

53622816570 2

53622816571 3

53622816572 4

Question Number : 19 Question Id : 5362284255 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Identifying the sequence of stages of message processing

- (A) Action
- (B) Internalisation
- (C) Selection
- (D) Understanding
- (E) Perception

Choose the correct answer from the options given below :

- |                           |                             |
|---------------------------|-----------------------------|
| (1) (A) (B) (D), (E), (C) | (2) (B), (C), (A), (D), (E) |
| (3) (D), (E) (B) (A) (C)  | (4) (E), (D), (C), (B), (A) |

Options :

53622816573 1

53622816574 2

53622816575 3

53622816576 4

Question Number : 19 Question Id : 5362284255 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

संदर्भ प्रक्रिया के चरणों के क्रम की पहचान कीजिए

- (A) प्रक्रिया
- (B) आध्यतमीकरण
- (C) चयन
- (D) समझना
- (E) अवबाधन

सही दिए गए विकल्पों में से सही उत्तर चुनिए

- |                             |                             |
|-----------------------------|-----------------------------|
| (1) (A), (B), (D), (E), (C) | (2) (B), (C), (A), (D), (E) |
| (3) (D), (E), (B), (A), (C) | (4) (E), (D), (C), (B), (A) |

Options :

53622816573. 1

53622816574. 2

53622816575. 3

53622816576. 4

Question Number : 20 Question Id : 5362284256 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Match List I with List II

List I	List II
(Medium)	(Example for description)
(A) Newspaper	(I) Networking
(B) Radio and television	(II) Audio, Video and graphics
(C) Social Media	(III) Broadsheet
(D) Multi media	(IV) Broadcasting

Choose the correct answer from the options given below

- (1) (A) (III), (B) (IV), (C) (I), (D) (II)
- (2) (A) (IV), (B) I, (C) (II), (D) (III)
- (3) (A) (I), (B) (II), (C) (III), (D) (IV)
- (4) A) (II), (B) (III), (C) (IV), (D) (I)

Options :

53622816577 1

53622816578 2

53622816579 3

53622816580 4

Question Number : 20 Question Id : 5362284256 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची I को सूची II से सुमेलित कीजिए

सूची I

(माध्यम)

- (A) समाचार पत्र
- (B) रेडियो एवं दूरदर्शन
- (C) सामाजिक मीडिया
- (D) मल्टी मीडिया

सूची II

(विवरण का उदाहरण)

- (I) नेटवर्किंग
- (II) श्रवण, दृश्य तथा छाप चित्र
- (III) ब्राडशीट
- (IV) प्रसारण

निम्नलिखित विकल्पों में से सही उत्तर चुनिए

- (1) (A)-(III), (B)-(IV), (C) (I), (D) (II)
- (2) (A) (IV), (B)-(I), (C)-(II), (D)-(III)
- (3) (A) (I), (B) (II) (C) (III), (D) (IV)
- (4) (A) (II), (B)-(III), (C) (IV), (D)-(I)

Options :

- 53622816577 1
- 53622816578 2
- 53622816579 3
- 53622816580 4

Question Number : 21 Question Id : 5362284257 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a park A, B, C, D, E and F are sitting. C is the brother of D's husband and son of A. F is the daughter of D and sister of E.

- (A) E is the grandson of A
- (B) F is the daughter of C
- (C) B is the father of F
- (D) There are one son and one daughter in the group
- (E) C is the uncle of E

Choose the correct answer from the options given below .

- |                           |                           |
|---------------------------|---------------------------|
| (1) (A), (B) and (C) only | (2) (A), (C) and (E) only |
| (3) (B), (D) and (E) only | (4) (B), (C) and (D) only |

Options :

- 53622816581 1
- 53622816582 2
- 53622816583 3
- 53622816584 4

Question Number : 21 Question Id : 5362284257 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

एक पार्क में A, B, C, D, E और F बैठे हैं। C, D के पति का भाई है और A का पुत्र है। F, D की पुत्री है तथा E की बहन है।

- (A) E, A का पुत्र है
- (B) F, C की पुत्री है
- (C) B, F का पिता है
- (D) समूह में एक पुत्र और एक पुत्री है
- (E) C, E का चाचा (uncle) है

नीचे दिये गये विकल्पों में सही उत्तर चुनिये

- (1) केवल (A), (B) और (C)
- (2) केवल (A), (C) और (E)
- (3) केवल (B), (D) और (E)
- (4) केवल (B), (C) और (D)

Options :

- 53622816581
- 53622816582 2
- 53622816583 3
- 53622816584 4

Question Number : 22 Question Id : 5362284258 Question Type : MCQ Option Shuffling No Is Question Mandatory No

Correct Marks : 2 Wrong Marks : 0

The ratio of ages of two persons A and B is 3 : 4 and that of ages of B and C is 4 : 5. If the average of all three is 40 years, what is B's age?

- (1) 20 years
- (2) 30 years
- (3) 40 years
- (4) 50 years

Options :

- 53622816585
- 53622816586 2
- 53622816587 3
- 53622816588 4

Question Number : 22 Question Id : 5362284258 Question Type : MCQ Option Shuffling No Is Question Mandatory No

Correct Marks : 2 Wrong Marks : 0

यदि व्यक्ति A और B की आय का अनुपात 3 : 4 है और B तथा C की आय का अनुपात 4 : 5 है यदि तीनों की संयुक्त आय 40 वर्ष हो तो B की आय कितनी है ?

- |             |             |
|-------------|-------------|
| (1) 20 वर्ष | (2) 30 वर्ष |
| (3) 40 वर्ष | (4) 50 वर्ष |

Options :

53622816585 .

53622816586 2

53622816587 3

53622816588 4

Question Number : 23 Question Id : 5362284259 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If some pens are pencils but no pencil is sharpener then

- (A) All pencils are pens  
(B) Some sharpeners are pencils  
(C) Some pens are not sharpener  
(D) Some pencils are not pens

Choose the correct answer from the options given below.

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (C) only | (2) (B) and (C) only |
| (3) (A) and (D) only | (4) (B) and (D) only |

Options :

53622816589 .

53622816590 2

53622816591 3

53622816592 4

Question Number : 23 Question Id : 5362284259 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



आत कुछ पैन पेरिऑल हैं परन्तु कांड पेरिऑल शार्पेनर नहीं है तब

- (A) सभी पेरिऑल पैन हैं
- (B) कुछ शार्पेनर पेरिऑल हैं
- (C) कुछ पैन शार्पेनर नहीं हैं
- (D) कुछ पेरिऑल पैन नहीं हैं

नीचे दिये गये विकल्पों में से सही उत्तर चयनित करें

- |                     |                     |
|---------------------|---------------------|
| (1) केवल (A) और (C) | (2) केवल (B) और (C) |
| (3) केवल (A) और (D) | (4) केवल (B) और (D) |

Options :

53622816589

53622816590 2

53622816591 3

53622816592 4

Question Number : 24 Question Id : 5362284260 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a 100 meters race A beat B by 10 meter or 2 second What is the speed of A?

- |             |             |
|-------------|-------------|
| (1) 5 Km/h  | (2) 10 Km/h |
| (3) 15 Km/h | (4) 20 Km/h |

Options :

53622816593 .

53622816594 2

53622816595 3

53622816596 4

Question Number : 24 Question Id : 5362284260 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

100 मीटर की एक दौड़ में, A ने B को 10 मीटर या 2 सेकंड से हराया A की गति क्या है?

- |                    |                    |
|--------------------|--------------------|
| (1) 5 कि मी /घंटा  | (2) 10 कि मी /घंटा |
| (3) 15 कि मी /घंटा | (4) 20 कि मी /घंटा |

Options :

53622816593 .

53622816594 2

53622816595 3

53622816596 4

Question Number : 25 Question Id : 5362284261 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Three pipes fill a tank in 4 hours. If two of them take 8 and 12 hours each to fill the tank how many hours will the third pipe take to fill the tank"

- |              |              |
|--------------|--------------|
| (1) 6 hours  | (2) 16 hours |
| (3) 18 hours | (4) 24 hours |

Options :

53622816597 1

53622816598 2

53622816599 3

53622816600 4

Question Number : 25 Question Id : 5362284261 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

तीन पाइप एक टंकी को 4 घंटे में भर सकते हैं। यदि उनमें से दो पाइप प्रत्येक टंकी को भरने में 8 और 12 घंटे का समय लेते हैं तो तीसरा पाइप को टंकी भरने में कितने घंटे का समय लगेगा?

- |             |             |
|-------------|-------------|
| (1) 8 घंटे  | (2) 16 घंटे |
| (3) 18 घंटे | (4) 24 घंटे |

Options :

53622816597 1

53622816598 2

53622816599 3

53622816600 4

Question Number : 26 Question Id : 5362284262 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which one of the following schools has not accepted anumāna (inference) as a valid source of knowledge?

- |                     |                   |
|---------------------|-------------------|
| (1) Advaita Vedānta | (2) Viśiṣṭādvaita |
| (3) Chārvāka        | (4) Sāṅkhya       |

Options :

53622816601 1

53622816602 2

53622816603 3

53622816604 4

Question Number : 26 Question Id : 5362284262 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन से सम्प्रसारण के अनवयव हैं एक जन के सत्त के रूप में स्वीकार नहीं किया है?

(1) अद्वैत ब्रह्मन्त

(2) विनिश्चय

(3) चाविक

(4) साध्य

Options :

53622816601

53622816602 2

53622816603 3

53622816604 4

Question Number : 27 Question Id : 5362284263 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : Substance is always the subject of all predicates

Reason (R) : Substance is self-existent and self-conceived.

In the light of the above statements, choose the correct answer from the options given below

(1) Both (A) and (R) are true and (R) is the correct explanation of (A)

(2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A)

(3) (A) is true but (R) is false

(4) (A) is false but (R) is true

Options :

53622816605 1

53622816606 2

53622816607 3

53622816608 4

Question Number : 27 Question Id : 5362284263 Question Type : MCQ Option Shuffling , No Is Question

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

नीचे दो कथन दिए गए हैं जिनमें एक का अभिकथन (A), और दूसरा का उत्तर (R) रखा गया है

अभिकथन (A) :            प्रत्यर्थ सदैव सभी विधवा का विषय है।

उत्तर (R) :                प्रत्यर्थ स्वतः विद्यमान एवं स्वतः विचारित होता है

उपरोक्त कथनों के आलापक में निम्नांकित विकल्पों में से सही उत्तर चुनें :

- (1)      (A) और (R) दोनों सही हैं और (R), (A) की सही व्याख्या है।
- (2)      (A) और (R) दोनों सही हैं परन्तु (R), (A) की सही व्याख्या नहीं है
- (3)      (A) सही है परन्तु (R) सही नहीं है
- (4)      (A) सही नहीं है परन्तु (R) सही है

**Options :**

- 53622816605 . 1  
53622816606 . 2  
53622816607 . 3  
53622816608 . 4

**Question Number : 28 Question Id : 5362284264 Question Type : MCQ Option Shuffling : No Is Question**

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Given below are two Statements

'The water of the pond is muddy. It must have rained last night.

What kind of Anumāna (inference) has been used in the above statements. Choose the correct option from the following :

- (A) Sesavat anumāna
- (B) Comparison
- (C) Purvavat anumāna
- (D) Both (A) and (B)

Choose the most appropriate answer from the options given below

- |              |              |
|--------------|--------------|
| (1) (A) only | (2) (B) only |
| (3) (C) only | (4) (D) only |

Options :

53622816609 .

536228166 0.2

536228166.1 3

536228166.2 4

Question Number : 28 Question Id : 5362284264 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

नीचे दो कथन दिए गए हैं

'तालाब का पानी मटमैला है विगत रात अवश्य बरसात हुई होगी'

समयगत कक्षिता में किस प्रकार के अनुमान का प्रयोग किया गया है निम्नांकित में सही विकल्प चर्निए

- (A) शपथत अनुमान
- (B) तुलना
- (C) पक्कत अनुमान
- (D) (A) एवं (B) दोनों

नीचे दिये गये विकल्पों में से सही उत्तर चर्निये

- (1) केवल (A)
- (2) केवल (B)
- (3) केवल (C)
- (4) केवल (D)

Options :

53622816609 .  
536228166 0 2  
536228166... 3  
53622816612 4

Question Number : 29 Question Id : 5362284265 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I	List II
(Philosophical doctrines)	(Philosophical schools)
(A) Syādvāda	(I) Nyāya
(B) Anupalabdhi	(II) Buddhism
(C) Apoha	(III) Vedānta
(D) Abhāva	(IV) Jainism

Choose the correct answer from the options given below

- (1) (A) (II), (B) (IV), (C) (III), (D) (I)
- (2) (A) (IV), (B) (III), (C) (II), (D) (I)
- (3) (A) (I), (B) (II), (C) (IV), (D) (III)
- (4) (A) (III), (B) (I), (C) (II), (D) (IV)

Options :

- 536228166.3 .  
536228166.4 2  
536228166.5 3  
536228166.6 4

Question Number : 29 Question Id : 5362284265 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची I को सूची II के साथ सम्मेलित कीजिए

सूची I

शङ्खान्त सिद्धान्त

सूची II

, नाशान्त सिद्धान्त धर्म

- (A) स्यादवाद  
(B) अनुपलब्धि  
(C) अपात्र  
(D) अपात्र

- (I) न्याय  
(II) बौद्ध दर्शन  
(III) चैतन्य  
(IV) जैन दर्शन

नीचे दिये गये विकल्पों में से सही उत्तर चुनिए

- (1) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)  
(2) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)  
(3) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)  
(4) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

Options :

- 536228166.3 .  
536228166.4 2  
536228166.5 3  
536228166.6 4

Question Number : 30 Question Id : 5362284266 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which one of the following pramānas has been accepted in Buddhism?

- (1) Arthāpatti (2) Anupalabdh.  
(3) Śabda (4) Pratyaksha

Options :

- 536228166.7 .  
536228166.8 2  
536228166.9 3  
536228166.0 4

Question Number : 30 Question Id : 5362284266 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

बोद्ध मन द्वारा निम्नलिखित में से कौन से प्रमाण को स्वीकार किया गया है ?

- |                |                  |
|----------------|------------------|
| (1) अर्थापत्ति | (2) अनुप्रत्यक्ष |
| (3) शब्द       | (4) प्रत्यक्ष    |

Options :

536228166.7 .

536228166.8. 2

536228166.9 3

53622816620 4

Question Number : 31 Question Id : 5362284267 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A type of memory that holds the computer startup routine is

- |           |         |
|-----------|---------|
| (1) Cache | (2) RAM |
| (3) DRAM  | (4) ROM |

Options :

53622816621

53622816622 2

53622816623 3

53622816624 4

Question Number : 31 Question Id : 5362284267 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

ममारी का वह प्रकार कौन सा है, जो कम्प्यूटर स्टार्टअप को नैव्यिक रखता है

- |           |         |
|-----------|---------|
| (1) Cache | (2) RAM |
| (3) DRAM  | (4) ROM |

Options :

53622816621 .

53622816622 2

53622816623 3

53622816624 4

Question Number : 32 Question Id : 5362284268 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Cloud computing has the following distinct characteristics-

- (A) The service is hosted on the internet
- (B) It is made available by a service provider
- (C) It computes and predicts rain when the weather is cloudy
- (D) The service is fully managed by the provider

Choose the correct answer from the options given below

- (1) (A), (B) only
- (2) (A), (B), (C) only
- (3) (A), (D) only
- (4) (A), (B), (D) only

Options :

- 53622816625 1
- 53622816626 2
- 53622816627 3
- 53622816628 4

Question Number : 32 Question Id : 5362284268 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

क्लाउड कंप्यूटिंग की निम्नलिखित में से कौनसी विशेषताएं हैं?

- (A) यह सेवा इंटरनेट पर प्रदान की जाती है
- (B) यह सेवा प्रदाता के द्वारा अपलॉड कराई जाती है।
- (C) इस मौसम संचालन से तां यह परिकल्पित कर वर्षा की भविष्यवाणी करता है
- (D) प्रदाता द्वारा इस सेवा का पूर्णरूपेण प्रबंधन किया जाता है।

सही दिए गए विकल्पों में से सही उत्तर चुनिए

- (1) केवल (A), (B)
- (2) केवल (A), (B), (C)
- (3) केवल (A), (D)
- (4) केवल (A), (B), (D)

Options :

- 53622816625 1
- 53622816626 2
- 53622816627 3
- 53622816628 4

Question Number : 33 Question Id : 5362284269 Question Type : MCQ Option Shuffling : No Is Question

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

A firewall is a software tool that protects

- (A) Server
- (B) Network
- (C) Fire
- (D) Individual Computer

Choose the correct answer from the options given below

- |                        |                        |
|------------------------|------------------------|
| (1) (A), (C) only      | (2) (B), (C) only      |
| (3) (A), (B), (C) only | (4) (A), (B), (D) only |

**Options :**

53622816629 .

53622816630 2

53622816631 3

53622816632 4

**Question Number : 33 Question Id : 5362284269 Question Type : MCQ Option Shuffling No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

फ़ायरवॉल एक सॉफ्टवेयर टूल है, जो निम्नलिखित में से किसकी रक्षा करता है?

- (A) सर्वर
- (B) नेटवर्क
- (C) फायर
- (D) वैयक्तिक कंप्यूटर

नीचे दिए गए विकल्पों में से सही उत्तर चुनिये

- |                        |                        |
|------------------------|------------------------|
| (1) केवल (A), (C)      | (2) केवल (B), (C)      |
| (3) केवल (A), (B), (C) | (4) केवल (A), (B), (D) |

**Options :**

53622816629 .

53622816630 2

53622816631 3

53622816632 4

**Question Number : 34 Question Id : 5362284270 Question Type : MCQ Option Shuffling No Is Question Mandatory : No**

Correct Marks : 2 Wrong Marks : 0

The word blog is derived from the word

- |            |             |
|------------|-------------|
| (1) My log | (2) We blog |
| (3) E blog | (4) Blogger |

Options :

53622816633 .

53622816634 2

53622816635 3

53622816636 4

Question Number 34 Question Id 5362284270 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

'ब्लॉग' शब्द निम्नलिखित में से किसे शब्द से प्राप्त किया गया है

- |              |              |
|--------------|--------------|
| (1) साईं लोग | (2) वी ब्लॉग |
| (3) ई ब्लॉग  | (4) ब्लॉगर   |

Options :

53622816633 .

53622816634 2

53622816635 3

53622816636 4

Question Number 35 Question Id 5362284271 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

List II

- |              |              |
|--------------|--------------|
| (A) Input    | (I) Mouse    |
| (B) Output   | (II) Monitor |
| (C) Memory   | (III) Cache  |
| (D) Software | (IV) Python  |

Choose the correct answer from the options given below

- (1) (A) (I), (B) (II), (C) (IV), (D) (III)
- (2) (A) (I), (B) (III), (C) (II), (D) (IV)
- (3) (A) (III) (B) (II), (C) (I) (D) (IV)
- (4) (A) (I), (B) (II), (C) (III), (D) (IV)

Options :

- 53622816637 1  
53622816638 2  
53622816639 3  
53622816640 4

Question Number 35 Question Id 5362284271 Question Type MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

सत्र I का सत्र II के साथ सम्बन्धित कीजिए

सत्र I

सत्र II

(A) इनपुट

(B) आउटपुट

(C) मशीन

(D) सॉफ्टवेयर

(I) माउस

(II) मॉनिटर

(III) केबल

(IV) प्रोग्रामर

नीचे दिये गये विकल्पों में से सही उत्तर चुनिए

(1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)

(2) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

(3) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)

(4) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

Options :

53622816637 1

53622816638 2

53622816639 3

53622816640 4

Question Number 36 Question Id 5362284272 Question Type MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

Which of the International Agreements (Convention/Protocols) are legally binding on the member countries (parties)?

- (A) Convention on Biological Diversity
- (B) Kyoto Protocol
- (C) Montreal Protocol
- (D) Paris Agreement

Choose the most appropriate answer from the options given below

- (1) (C) only
- (2) (A) and (C) only
- (3) (A), (B) and (C) only
- (4) (B), (C) and (D) only

Options :

53622816641

53622816642 2

53622816643 3

53622816644 4

Question Number : 36 Question Id : 5362284272 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नार्थित म म कौनस समझते अभिसमय प्रोत्पाकालस सदस्य राष्ट्र पक्षा पर विधिक रूप स बाणकारी है

- A) जैविक विविधता अभिसमय
- B) स्वारा प्रोत्पाकाल
- C) मान्दरुत प्रोत्पाकाल
- D) पौरस समझोता

नीचे दिय गये विकल्पों म से सही उत्तर चनिये

- (1) केवल (C)
- (2) केवल (A) और (C)
- (3) केवल (A), (B) और (C)
- (4) केवल (B), (C) और (D)

Options .

- 53622816641 1
- 53622816642 2
- 53622816643 3
- 53622816644 4

Question Number : 37 Question Id : 5362284273 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements. One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : Carbon dioxide emissions from bioenergy Production have traditionally been excluded from most emission inventories and climate impact studies

Reason (R) : Carbon dioxide emissions associated with production of bioenergy are significantly less compared to those from combustion of fossil fuels

In the light of the above statements, choose the correct answer from the options given below

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
- (3) (A) is true but (R) is false
- (4) (A) is false but (R) is true

Options :

53622816645. 1

53622816646. 2

53622816647. 3

53622816648. 4

Question Number : 37 Question Id : 5362284273 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



शेड या कक्षित किए गए हैं जिसमें एक को अभिकथन (A) और दूसरे को नक (R) कहा गया है

**अभिकथन (A)** वेब ऊर्जा के उत्पादन में कथन डाइनामोइड के उत्सर्जन का अभिकारा उत्सर्जन सूची और जलवायु प्रभाव अध्ययनों का पारम्परिक रूप से अपवर्जित किया गया है

**नक (R)** वेब ऊर्जा में सबसे अधिक वाइभाइसमाइड के उत्सर्जन जोर-शम ईंधन के चलन की तुलना में महत्वपूर्ण रूप से कम होते हैं

उपर्युक्त कथनों के आलाोक में निम्नांकित विकल्पों में से सही उत्तर चुनें

- (1) (A) और (R) दोनों सही हैं और (R), (A) की सही व्याख्या है
- (2) (A) और (R) दोनों सही हैं परन्तु (R), (A) की सही व्याख्या नहीं है
- (3) (A) सही है परन्तु (R) सही नहीं है
- (4) (A) सही नहीं है परन्तु (R) सही है

Options :

- 53622816645 1  
53622816646 2  
53622816647 3  
53622816648 4

Question Number : 38 Question Id : 5362284274 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Wind energy is very sensitive to the wind velocity because wind power is directly proportional to the

- (1) wind velocity
- (2) square of the wind velocity
- (3) square root of the wind velocity
- (4) cube of the wind velocity

Options :

- 53622816649 1  
53622816650 2  
53622816651 3  
53622816652 4

Question Number : 38 Question Id : 5362284274 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

प्रवाह बना प्रवाह के वा के प्रति अत्यधिक संवेदनशील है क्योंकि प्रवाह अक्षित निम्नलिखित में से किस एक के प्रत्यक्ष अनुपात में होती है ?

- |                              |                        |
|------------------------------|------------------------|
| (1) प्रवाह वेग               | (2) प्रवाह वेग के वर्ग |
| (3) प्रवाह वेग के व्युत्क्रम | (4) प्रवाह वेग के घन   |

Options :

53622816649

53622816650 2

53622816651 3

53622816652 4

Question Number : 39 Question Id : 5362284275 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

During physical treatment process of waste water, what is the correct order of following operations to be followed?

- (A) Flocculation
- (B) Filtration
- (C) Screening
- (D) Sedimentation

Choose the correct answer from the options given below :

- |                        |                       |
|------------------------|-----------------------|
| (1) (C), (D), (B), (A) | (2) (C), (D) (A) (B)  |
| (3) (B), (D), (A), (C) | (4) (B), (C), (D) (A) |

Options :

53622816653 .

53622816654 2

53622816655 3

53622816656 4

Question Number : 39 Question Id : 5362284275 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

भूतलगत तन र भूतलगत उपगुर क दूंगत नननरुनरुत न न कून नर प्रकलन क ननू कुर नै ?

- (A) फलकुकलशन
- (B) फलनुररुन
- (C) सुनरन
- (D) संपीमनशन

नीक दलर गर वलकनुरन नें स सनू कनर वनरर .

- |                        |                        |
|------------------------|------------------------|
| (1) (C), (D), (B), (A) | (2) (C), (D), (A), (B) |
| (3) (B), (D), (A), (C) | (4) (B), (C), (D), (A) |

Options :

- 53622816653 .
- 53622816654 2
- 53622816655 3
- 53622816656 4

Question Number 40 Question Id 5362284276 Question Type MCQ Option Shuffling No Is Question Mandatory No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements. One is labelled as Assertion (A) and the other is labelled as Reason (R) :

Assertion (A) Carbon monoxide (CO) is a serious asphyxiant, even a short exposure may have fatal health issues

Reason (R) Hemoglobin present in the blood has greater affinity towards carbon monoxide than oxygen.

In the light of the above statements choose the most appropriate answer from the options given below

- 1) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- 2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A)
- 3) (A) is correct but (R) is not correct
- 4) (A) is not correct but (R) is correct

Options :

- 53622816657 .

53622816658 2

53622816659 3

53622816660 4

Question Number 40 Question Id 5362284276 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

रीढ़ का कंधे से जुड़ा पाठ है जिसमें से एक को अभिकेंद्र (A) और दूसरे को तक (R) कहा गया है

अभिकेंद्र (A) रजत और प्रोक्साइड (CO) एक यथार्थ श्वासरोधक है इससे एक रक्त श्रेण के उत्थामन से घातक स्वास्थ्य प्रसल उत्पन्न हो सक्त है

तक (R) रक्त में विद्यमान हीमोग्लोबिन का प्रोक्साइड की तुलना में कार्बन मोनाक्साइड के प्रति अधिक सहज सह्य होता है

अपर्यक्त कथनों के आलाक में निम्नांकित विकल्पों में से सर्वाधिक अपर्यक्त उत्तर चुन ।

- (1) (A) और (R) दास सही हैं और (R), (A) की सही व्याख्या है
- (2) (A) और (R) दोनों सही हैं परन्तु (R) (A) की सही व्याख्या नहीं है
- (3) (A) सही है परन्तु (R) सही नहीं है
- (4) (A) सही नहीं है परन्तु (R) सही है

Options :

53622816657 1

53622816658 2

53622816659 3

53622816660 4

Question Number 41 Question Id 5362284277 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II List I consists of the Vedangas and List II contains subjects dealt in them.

List I

List II

(A) Nirukta

(I) Phonetics

(B) Chhandas

(II) Ritual

(C) Shiksha

(III) Metrics

(D) Kalpa

(IV) Etymology

Choose the correct answer from the options given below

(1) (A) (II), (B) (IV), (C) (III) (D) (I)

(2) (A) (IV), (B) (III), (C) (I) (D) (II)

(3) (A) (III), (B) (I), (C) (II), (D) (IV)

(4) (A) (I), (B) (II), (C) (IV) (D) (III)

Options :

53622816661 .

53622816662 2

53622816663 3

53622816664 4

Question Number 41 Question Id : 5362284277 Question Type MCQ Option Shuffling No Is Question Mandatory No

Correct Marks : 2 Wrong Marks : 0

सूची I का सूची II से सम्बन्धित कीजिए सूची I में वद्वान हैं और सूची II में उनके सम्बन्धित विषय दिए गए हैं।

सूची I

सूची II

(A) निरुक्त

(I) ध्वनिविज्ञान

(B) छद्म

(II) अनुप्रास

(C) शिक्षा

(III) छन्दशास्त्र

(D) कल्प

(IV) व्यन्ग्यविज्ञान

नीचे दिये गए विकल्पों में से सही उत्तर चुनिए

(1) (A) (II), (B) (IV), (C) (III), (D) (I)

(2) (A) (IV), (B) (III), (C) (I), (D) (II)

(3) (A) (III), (B) (I), (C) (II), (D) (IV)

(4) (A) (I), (B) (II), (C) (IV), (D) (III)

Options :

53622816661 1

53622816662 2

53622816663 3

53622816664 4

Question Number : 42 Question Id : 5362284278 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following explain the concept of values?

- (A) Values are beliefs tied inextricably to human emotion and behaviour
- (B) Values refer to desirable goals people strive to attain
- (C) Values are conflict-free
- (D) Values are ordered by importance relative to one another
- (E) Values are utilized primarily to effect change in knowledge of a person

Choose the correct answer from the options given below

- (1) (A), (B), (C) only
- (2) (A), (B), (D) only
- (3) (B), (C), (D) only
- (4) (C), (D), (E) only

Options :

53622816665 .

53622816666. 2

53622816667. 3

53622816668. 4

Question Number : 42 Question Id : 5362284278 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसा कथन मूल्यों की अवधारणा की व्याख्या करता है?

- (A) मूल्य मानव सवग और व्यवहार के साथ अविच्छिन्न रूप से सम्बद्ध विश्वास है
- (B) मूल्य का तात्पर्य उन वांछित वस्तुओं से है जिनकी प्राप्ति के लिए व्यक्ति प्रयास करने है
- (C) मूल्य सघर्ष मुक्त है
- (D) मूल्य एक दूसरे के सापेक्षित महत्व के अनुसार क्रमित हैं।
- (E) मूल्य का पार्थक्यिक रूप से व्यक्त क जान में परिवर्तन लाने कोलय प्रयत्न किया जाता है

नाच गये गये विकल्पों में से सही उत्तर चयन करें

- |                        |                        |
|------------------------|------------------------|
| (1) केवल (A), (B), (C) | (2) केवल (A), (B), (D) |
| (3) केवल (B), (C), (D) | (4) केवल (C), (D) (E)  |

Options :

- 53622816665 1
- 53622816666 2
- 53622816667 3
- 53622816668 4

Question Number : 43 Question Id : 5362284279 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Which of the following come under the mandate of the University Grants Commission (UGC)?

- (A) Promotion and coordination of University education
- (B) Determining and monitoring standards of teaching, examination and research in Universities
- (C) Organising continuous professional development programmes for college and University teachers.
- (D) Framing regulations on minimum standards of education.
- (E) Disbursing and regulating grants to the universities and colleges.

Choose the correct answer from the options given below .

- (1) (A), (B), (C), (D) only
- (2) (B), (C), (D), (E) only
- (3) (A), (C), (D), (E) only
- (4) (A), (B), (D), (E) only

Options :

53622816669 .

53622816670 2

53622816671 3

53622816672 4

Question Number : 43 Question Id : 5362284279 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसे विश्वविद्यालय अनुदान आयोग की ओर से शिक्षा के अर्थगत अंग हैं ?

- (A) विश्वविद्यालयी शिक्षा का प्रोत्साहन और समन्वयन।
- (B) विश्वविद्यालय में शिक्षण, परीक्षा और शोध के मानकों का निर्धारण और अनुश्रवण
- (C) महाविद्यालय और विश्वविद्यालय के शिक्षकों के लिए व्यावसायिक विकास कार्यक्रमों का प्रयोजन
- (D) शिक्षा के न्यूनतम मानकों के अंग में विनियमों का बनाना।
- (E) विश्वविद्यालयों और महाविद्यालयों के अनुदान का आवंटन और विनियमन।

नीचे दिए गए विकल्पों में से सही उत्तर चुनिये

- |                             |                             |
|-----------------------------|-----------------------------|
| (1) केवल (A), (B), (C), (D) | (2) केवल (B), (C), (D), (E) |
| (3) केवल (A), (C), (D), (E) | (4) केवल (A), (B), (D), (E) |

Options :

- 53622816669 1
- 53622816670 2
- 53622816671 3
- 53622816672 4

Question Number : 44 Question Id : 5362284280 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements .

Statement I . Equality of educational opportunities is a pre-condition for achieving equity in education

Statement II Equity in education can be achieved without equality of educational opportunities.

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

53622816673 .

53622816674 2

53622816675 3

53622816676 4

Question Number 44 Question Id 5362284280 Question Type MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

नीचे दो कथन दिए गए हैं

कथन (I) ग्रंथिक अवसरा की समाप्ता शिक्षा न समता प्राप्त करना की एक पुरा गर्त है

कथन (II) ग्रंथिक अवसरा की समाप्ता काला शिक्षा न समता प्राप्त की न सकती है

अपुनक्त कथना के आलांक प निम्नांकित विकल्पा में स सही उत्तर चने :

(1) कथन I और II ढाने सही हैं ।

(2) कथन I और II ढाना गलत हैं ।

(3) कथन I सत्य है किन् कथन II गलत है

(4) कथन I असत्य है किन् कथन II सही है

Options :

53622816673 .

53622816674 2

53622816675. 3

53622816676 4

Question Number : 45 Question Id : 5362284281 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What are the advantages of Choice Based Credit System (CBCS) introduced by the UGC for higher education institutions?

(A) Focuses on student-centric education

(B) Allows students to choose inter disciplinary and intra disciplinary courses.

(C) Makes education at par with global standards

(D) Makes it easy to estimate the performance levels of students in terms of marks.

(E) Offers flexibility for students to undertake studies at different times and at different institutions

Choose the correct answer from the options given below

(1) (A), (B), (C), (D) only

(2) (B), (C), (D), (E ) only

(3) (A), (B), (C), (E) only

(4) (C), (D), (E), (A) only

Options :

53622816677 .

53622816678. 2

53622816679. 3

53622816680. 4

Question Number : 45 Question Id : 5362284281 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

य नी मां आरु लुचव शिक्षा मस्थाना न प्रारम्भ की गई प्रिकल्प आधारित कूडित प्रणाली (सी बी सी एस) क स्वा लाभ है।

- (A) इसम छात्र कन्दित शिक्षा पर ध्यान कन्दित किया जाता है।
- (B) इसम छात्र का अतावेद्यपरक और अत वेद्यपरक पाठ्यक्रमा क चयन की अनुमति नै जाती है
- (C) यह शिक्षा का वैश्विक मानका के समकक्ष बनाता है
- (D) यह पाठ्यक्रा क सतम में विद्यार्थ्या क नियामन स्तर का अनुपात जगस सग्न बनाता है
- (E) यह भिन्न समय पर भिन्न मस्थाना में अध्ययन करन में गतिशीलता प्रदान करता है।

नीच दिये गये विकल्पों में स सही उत्तर चनिये

- |                             |                             |
|-----------------------------|-----------------------------|
| (1) केवल (A), (B), (C), (D) | (2) केवल (B), (C), (D), (E) |
| (3) केवल (A), (B), (C), (E) | (4) केवल (C), (D), (E), (A) |

Options :

53622816677 .

53622816678. 2

53622816679. 3

53622816680. 4

Sub-Section Number :

3

Sub-Section Id :

536228169

Question Shuffling Allowed :

Yes

Question Id : 5362284282 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : {46 to 50}

Question Label : Comprehension

Read the passage and answer questions from 46 to 50.

Through their work and the efforts of others managers in all kinds of organisational settings, whether industrial, educational, governmental or military are attempting to run their organizations with the management by objectives process as a basic underlying management concept. Management by objectives is basically a process where by the seniors and the junior managers of an enterprise jointly identify its common goals, define each individuals major areas of responsibility in terms of the results expected, use these measures as guides for operating the unit and assessing the contribution of each of its members. In some cases this process has been successfully carried beyond the managerial level to include hourly employees. The concept rests on a philosophy of management that emphasizes an integration between external control by managers and self-control by employees. It can apply to any manager or individual no matter what level or function, and to any organisation regardless of size. The effective functioning of this system is an agreement between a manager and an employee about that employee's groups performance goals during a stated time period. These goals can emphasise either output variables or intervening variables or some combination of both. The important thing is that goals are jointly established and agreed upon in advance. At the end of the time period performance is reviewed in relation to accepted goals. Both the employee and the manager participate in this review.

#### Sub questions

Question Number : 46 Question Id : 5362284283 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In an MBO organisation is managed through the identification of

- |                                  |                                |
|----------------------------------|--------------------------------|
| (1) competing goals              | (2) common objectives          |
| (3) its specific characteristics | (4) senior and junior managers |

Options :

- 53622816681 1
- 53622816682 2
- 53622816683 3
- 53622816684 4

Question Number : 47 Question Id : 5362284284 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The requisite for management by objectives is centred on

- |                               |                                 |
|-------------------------------|---------------------------------|
| (1) the control by seniors    | (2) the guidance of juniors     |
| (3) the participatory process | (4) the organisational settings |

Options :

- 53622816685 1
- 53622816686 2
- 53622816687 3
- 53622816688 4

Question Number : 48 Question Id : 5362284285 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The critical feature of the concept in this type of management is related to

- (1) the assignment of responsibility to the workers
- (2) distinguishing the operational role between managers and workers
- (3) promoting of uniformity of work environment among all types of organisation
- (4) sharing of responsibility with an eye on results

Options :

53622816689

53622816690 2

53622816691 3

53622816692 4

Question Number 49 Question Id : 5362284286 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In this frame of reference how does an organisation function effectively?

- (1) By including the hourly employees in the managerial positions
- (2) By identifying and executing performance targets in a collaborative mode
- (3) By imposing a rigid philosophy of management
- (4) By providing separate work environment for both managers and workers

Options :

53622816693 1

53622816694 2

53622816695 3

53622816696 4

Question Number 50 Question Id : 5362284287 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The philosophy behind management by objectives is to

- (1) effect improvement through a joint review of achievement of performance goals within a given timeframe
- (2) integrate external and internal controls by managers
- (3) provide managers scope to review the accepted output variables
- (4) agree upon different performance goals for managers and employees

Options :

53622816697 1

53622816698 2

53622816699 3

53622816700 4

Question Id : 5362284282 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (46 to 50)

Question Label : Comprehension

नीचे दिए गए पद्यांश का ध्यानपूर्वक पढ़िए और उसके पश्चात्, प्रश्न 46 (00) के सही उत्तर चुनिए।

सभी प्रकार के संगठनों में चाहे औद्योगिक, शैक्षिक, सरकारी अथवा अन्य व्यवस्था में बड़े पैमाने पर प्रबंधन कार्य एवं प्रशासन के माध्यम से अपने अपने संपन्नता के चेतन के लिए समर्थन मिले एक बड़े अर्थव्यवस्था का गठन के यह है जिस उद्देश्य आधारीत प्रबंधन की सजा हो गई है। उद्देश्य द्वारा प्रबंधन करना मानते हैं यह शक्तिवादी है किमती किमती उद्यम में बड़े संगठन एवं चीन प्रबंधन के समान लक्ष्य का समन्वयन का संयोजन करने है। प्रत्येक व्यक्ति के कार्य दायित्व के अनुरोध के संयोजन परिणामों के आधार पर परिभाषित करने है तथा उन मानकों का अपने हक के समाधान में ईश्वर के रूप में के रूप में अनुपालन करते हैं। साथ ही दूसरा यह व्यवस्था का भी आकलन करते हैं। कतिपय दृष्टान्तों में यह शक्तिवादी प्रबंधनीय स्तर से हटकर डीन के अनुसंधानों के परिचालन का भी लक्ष्य की गई है। यह अनुसंधान प्रबंधन के अर्थ में आधारित है किमती प्रबंधन द्वारा प्रबंधन बाह्य नियंत्रण एवं आभिक्रमिया द्वारा अनुपातित आर्थिक नियंत्रण के बीच समन्वय पर बल दिया जाता है। यह किमती भी प्रबंधन या व्यक्ति के सतर्क से लागू हो सकती है। यह वह किमती भी स्तर या प्रकार से संबंधित है तथा किमती भी संगठन चाहें छोटे या बड़े में बड़ा है। इस प्रणाली की प्रभावशीलता के बाद की अपेक्षा रखती है कि प्रबंधन एवं कर्मचारियों के समन्वयत निष्पादन लक्ष्य में सफलता है। यह लक्ष्य आगे चलकर अथवा मध्यवर्ती चरण अथवा अन्य चरण के किसी भी लक्ष्य के रूप में कार्यशील हो पा सकत है। महत्वपूर्ण बात यह है कि, संगठनगत लक्ष्य साधनों के साथ परिभाषित होते हैं तथा वे पूरे में हो आम सफलता की परिधि में होते हैं। एक निश्चित कालावधि के अंतराल में या एक बार लक्ष्य के सतर्क में निष्पादन की समीक्षा की जाती है तथा प्रबंधन एवं आभिक्रमियों द्वारा ही इस समीक्षा में संलग्न होते हैं।

### Sub questions

Question Number : 46 Question Id : 5362284283 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

किमती उद्देश्य आधारीत प्रबंधन एम की भा में संगठन का निम्नलिखित में से किसकी पहचान करने के माध्यम से प्रबंधित किया जाता है।

- |                               |                                   |
|-------------------------------|-----------------------------------|
| (1) प्रतिस्पर्धी लक्ष्य की    | (2) साझा उद्देश्यों की            |
| (3) उसकी विशिष्ट विशेषताओं की | (4) वांछित और कनिष्ठ प्रबंधकों की |

Options :

- 53622816681 1  
53622816682 2  
53622816683 3  
53622816684 4

Question Number : 47 Question Id : 5362284284 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

उद्देश्य आधारीत प्रबंधन की प्रवेशाने निम्नलिखित में से किस पर कनिष्ठ है?

- |  |  |
|--|--|
| (1) विशिष्ट अभिक्रमिया द्वारा नियंत्रण | (2) कनिष्ठ अभिक्रमियों का दिशानिर्देशन |
| (3) महत्वपूर्णपूर्ण प्रक्रिया          | (4) संगठनात्मक व्यवस्था                |

Options :

- 53622816685 1  
53622816686 2  
53622816687 3  
53622816688 4

Question Number : 48 Question Id : 5362284285 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



इस प्रकार के प्रबंधन में संबंधित अवधारणा की मजबूत प्रशिक्षण निम्नलिखित में से किसमें संबंधित है

- (1) अधिकारियों को उत्तरदायित्व प्रौपना
- (2) प्रबंधकों और अधिकारियों के बीच उनकी कार्यगत भूमिका में अंतर करना
- (3) सभी प्रकार के संगठन के बीच कार्य वातावरण में एकरूपता का बढ़ावा देना
- (4) परिणामों पर ध्यान रखते हुए उत्तरदायित्व को साझा करना

Options :

- 53622816689 1  
53622816690 2  
53622816691 3  
53622816692 4

Question Number : 49 Question Id : 5362284286 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

दिए गए मॉडर्न के अनुसार, कोई संगठन किस प्रकार से प्रभावी रूप से कार्य करता है?

- (1) दैनिक अधिकारियों को प्रबंधकीय पदों पर शामिल करना।
- (2) मंडारितपूर्ण शांतिपूर्ण मोड में वास्तविक लक्ष्यों की पहचान करना और उनको कार्यान्वित करना
- (3) प्रबंधन पर कठोर दृष्टि लादना
- (4) प्रबंधकों और अधिकारियों दोनों के लिए अलग-अलग कार्य वातावरण प्रदान करना

Options :

- 53622816693 1  
53622816694 2  
53622816695 3  
53622816696 4

Question Number : 50 Question Id : 5362284287 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सदस्य आधारित प्रबंधन में निहित दृष्टि

- (1) विद्यमान की गई अभियोगों के अंदर नियंत्रित लक्ष्यों की उपलब्धि का सख्त समीक्षा के माध्यम से नियंत्रित प्रभाव में सुधार करना
- (2) प्रबंधकों द्वारा बाह्य और आंतरिक नियंत्रणों को संपादित करना
- (3) स्वीकार्य निम्न चरों की समीक्षा करने हेतु प्रबंधकों को गुंजाइश प्रदान करना
- (4) प्रबंधकों और अधिकारियों हेतु उत्तम अलग-अलग नियंत्रित लक्ष्यों पर सहमत होना।

Options :

- 53622816697 1  
53622816698 2  
53622816699 3  
53622816700 4

## PART II Computer Science and Applications

Section Id :

53622858

Section Number :

2

Section type :

Online

Mandatory or Optional :	Mandatory
Number of Questions :	92
Number of Questions to be attempted :	92
Section Marks :	200
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	536228170
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 5362284288 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

The number of positive integers not exceeding 100 that are either odd or the square of an integer is \_\_\_\_\_

- (1) 63
- (2) 59
- (3) 55
- (4) 50

Options :

53622816701 1  
53622816702 2  
53622816703 3  
53622816704 4

Question Number : 51 Question Id : 5362284288 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

The number of positive integers not exceeding 100 that are either odd or the square of an integer is \_\_\_\_\_

- (1) 63
- (2) 59
- (3) 55
- (4) 50

Options :

53622816701 1  
53622816702 2  
53622816703 3  
53622816704 4

Question Number : 52 Question Id : 5362284289 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

How many ways are there to pack six copies of the same book into four identical boxes, where a box can contain as many as six books?

- (1) 4
- (2) 6
- (3) 7
- (4) 9

Options :

53622816705 .

53622816706 2

53622816707 3

53622816708 4

Question Number : 52 Question Id : 5362284289 Question Type : MCQ Option Shuffling . No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

How many ways are there to pack six copies of the same book into four identical boxes, where a box can contain as many as six books?

- (1) 4
- (2) 6
- (3) 7
- (4) 9

Options :

53622816705 .

53622816706 2

53622816707 3

53622816708 4

Question Number : 53 Question Id : 5362284290 Question Type : MCQ Option Shuffling . No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following pairs of propositions are not logically equivalent?

- (1)  $((p \rightarrow r) \wedge (q \rightarrow r))$  and  $((p \vee q) \rightarrow r)$
- (2)  $p \leftrightarrow q$  and  $(\neg p \leftrightarrow \neg q)$
- (3)  $((p \wedge q) \vee (\neg p \wedge \neg q))$  and  $p \leftrightarrow q$
- (4)  $((p \wedge q) \rightarrow r)$  and  $((p \rightarrow r) \wedge (q \rightarrow r))$

Options :

53622816709 .

53622816710 2

53622816711 3

53622816712 4

Question Number : 53 Question Id : 5362284290 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following pairs of propositions are not logically equivalent?

- (1)  $((p \rightarrow r) \wedge (q \rightarrow r))$  and  $((p \vee q) \rightarrow r)$
- (2)  $p \leftrightarrow q$  and  $(\neg p \leftrightarrow \neg q)$
- (3)  $((p \wedge q) \vee (\neg p \wedge \neg q))$  and  $p \leftrightarrow q$
- (4)  $((p \wedge q) \rightarrow r)$  and  $((p \rightarrow r) \wedge (q \rightarrow r))$

Options :

53622816709 1

53622816710 2

53622816711 3

53622816712 4

Question Number : 54 Question Id : 5362284291 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following linear programming (LP),

$$\text{Max.} \quad z = 2x_1 + 3x_2$$

$$\text{Such that} \quad 2x_1 + x_2 \leq 4$$

$$x_1 + 2x_2 \leq 5$$

$$x_1, x_2 \geq 0$$

The optimum value of the LP is

- (1) 23
- (2) 9.5
- (3) 13
- (4) 8

Options :

53622816713 1

53622816714 2

53622816715 3

53622816716 4

Question Number : 54 Question Id : 5362284291 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following linear programming (LP),

$$\text{Max,} \quad z = 2x_1 + 3x_2$$

$$\text{Such that} \quad 2x_1 + x_2 \leq 4$$

$$x_1 + 2x_2 \leq 5$$

$$x_1, x_2 \geq 0$$

The optimum value of the LP is

- (1) 23
- (2) 9.5
- (3) 13
- (4) 8

Options :

53622816713 .  
53622816714 2  
53622816715 3  
53622816716 4

Question Number : 55 Question Id : 5362284292 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a machine with a byte addressable main memory of  $2^{16}$  bytes and block size of 8 bytes. Assume that a direct mapped cache consisting of 32 lines used with this machine. How many bits will be there in Tag, Line and word field of format of main memory addresses?

- (1) 8, 5, 3
- (2) 8, 6, 2
- (3) 7, 5, 4
- (4) 7, 6, 3

Options :

53622816717 .  
53622816718 2  
53622816719 3  
53622816720 4

Question Number : 55 Question Id : 5362284292 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a machine with a byte addressable main memory of  $2^{18}$  bytes and block size of 8 bytes. Assume that a direct mapped cache consisting of 32 lines used with this machine. How many bits will be there in Tag, line and word field of format of main memory addresses?

- (1) 8, 3, 3
- (2) 8, 6, 2
- (3) 7, 5, 4
- (4) 7, 6, 3

Options :

- 53622816717 1
- 53622816718 2
- 53622816719 3
- 53622816720 4

Question Number : 56 Question Id : 5362284293 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The following program is stored in memory unit of the basic computer. What is the content of the accumulator after the execution of program? (All location numbers listed below are in hexadecimal).

Location	Instruction
210	CLA
211	ADD 217
212	INC
213	STA 217
214	LDA 218
215	CMA
216	AND 217
217	1234H
218	9CE2H

- (1) 1002H
- (2) 2011H
- (3) 2022H
- (4) 0215H

Options :

- 53622816721 1
- 53622816722 2
- 53622816723 3
- 53622816724 4

Question Number : 56 Question Id : 5362284293 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The following program is stored in memory unit of the basic computer. What is the content of the accumulator after the execution of program? (All location numbers listed below are in hexadecimal).

Location	Instruction
210	CLA
211	ADD 217
212	INC
213	STA 217
214	LDA 218
215	CMA
216	AND 217
217	1234H
218	9CE2H

- (1) 1002H
- (2) 2011H
- (3) 2022H
- (4) 0215H

Options :

- 53622816721 1
- 53622816722 2
- 53622816723 3
- 53622816724 4

Question Number : 57 Question Id : 5362284294 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A non pipeline system takes 50ns to process a task. The same task can be processed in six segment pipeline with a clockcycle of 10ns. Determine approximately the speedup ratio of the pipeline for 500 tasks.

- (1) 8
- (2) 4.95
- (3) 5.7
- (4) 5.5

Options :

- 53622816725 1
- 53622816726 2
- 53622816727 3

Question Number : 57 Question Id : 5362284294 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A non-pipeline system takes 50ns to process a task. The same task can be processed in six-segment pipeline with a clockcycle of 10ns. Determine approximately the speedup ratio of the pipeline for 500 tasks.

- (1) 8
- (2) 4.95
- (3) 6.7
- (4) 5.0

Options :

53622816725 1  
53622816726 2  
53622816727 3  
53622816728 4

Question Number : 58 Question Id : 5362284295 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the radix of the numbers if the solution to the quadratic equation  $x^2 - 10x + 26 = 0$  is  $x = 4$  and  $x = 7$ ?

- (1) 8
- (2) 9
- (3) 10
- (4) 11

Options :

53622816729 1  
53622816730 2  
53622816731 3  
53622816732 4

Question Number : 58 Question Id : 5362284295 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the radix of the numbers if the solution to the quadratic equation  $x^2 - 10x + 26 = 0$  is  $x = 4$  and  $x = 7$ ?

- (1) 8
- (2) 9
- (3) 10
- (4) 11

Options :

53622816729 1



53622816730 2

53622816731 3

53622816732 4

Question Number : 59 Question Id : 5362284296 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following pseudo code fragment where a and b are integer variables that have been initialized

```
/* Pre-conditions : (a > 1 ^ a < b) */
```

```
/* Assume that overflow never occurs */
```

```
int x = 0; int p = 1;
while (p < b) {
    p = p * a;
    x = x + 1;
}
```

When the while loop terminates, what will be the value of x in terms of a and b?

- (1)  $a^b$
- (2)  $b^a$
- (3)  $\lfloor \log_a b \rfloor$  /\*  $\lfloor \cdot \rfloor$  means floor \*/
- (4)  $\lceil \log_a b \rceil$  /\*  $\lceil \cdot \rceil$  means ceil \*/

Options :

53622816733 1

53622816734 2

53622816735 3

53622816736 4

Question Number : 59 Question Id : 5362284296 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following pseudo code fragment where a and b are integer variables that have been initialized

```
/* Pre conditions : (a > 1 ^ a < b) */
/* Assume that overflow never occurs */

int x = 0; int p = 1
while (p < b) {
    p = p * a;
    x = x + 1
}
```

When the while loop terminates, what will be the value of x in terms of a and b?

- (1)  $a^b$
- (2)  $b^a$
- (3)  $\lfloor \log_a b \rfloor$  /\*  $\lfloor$  means floor \*/
- (4)  $\lceil \log_a b \rceil$  /\*  $\lceil$  means ceil \*/

Options :

- 53622816733 1
- 53622816734 2
- 53622816735 3
- 53622816736 4

Question Number : 60 Question Id : 5362284297 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In HTML, <map> tag is used for

- (1) defining a path between two nodes in an image
- (2) defining clickable region in an image
- (3) highlighting an area in an image
- (4) defining the site map of a web site

Options :

- 53622816737 1
- 53622816738 2
- 53622816739 3
- 53622816740 4

Question Number : 60 Question Id : 5362284297 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In HTML, <map> tag is used for

- (1) defining a path between two nodes in an image
- (2) defining clickable region in an image
- (3) highlighting an area in an image
- (4) defining the site map of a web site

Options :

53622816737 .

53622816738 2

53622816739 3

53622816740 4

Question Number : 61 Question Id : 5362284298 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Suppose you are compiling on a machine with 1 byte chars, 2 byte shorts, 4 byte ints, and 8 byte doubles, and with alignment rules that require the address of every primitive data element to be an integer multiple of the element's size. Suppose further that the compiler is not permitted to reorder fields. padding is used to ensure alignment. How much space will be consumed by the following array?

```
struct {  
    short s;  
    char c;  
    short t;  
    char d;  
    double r;  
    int i;  
} A[10] /*10-element array of structs*/
```

- (1) 160 bytes
- (2) 320 bytes
- (3) 240 bytes
- (4) 200 bytes

Options :

53622816741 .

53622816742 2

53622816743 3

53622816744 4

Question Number : 61 Question Id : 5362284298 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Suppose you are compiling on a machine with 1 byte chars, 2 byte shorts, 4 byte ints, and 8 byte doubles, and with alignment rules that require the address of every primitive data element to be an integer multiple of the element's size. Suppose further that the compiler is not permitted to reorder fields; padding is used to ensure alignment. How much space will be consumed by the following array?

```
struct {  
    short s;  
    char c;  
    short t;  
    char d;  
    double r;  
    int i;  
} A[10] /*10-element array of structs*/
```

- (1) 160 bytes
- (2) 320 bytes
- (3) 240 bytes
- (4) 200 bytes

Options :

- 53622816741 1
- 53622816742 2
- 53622816743 3
- 53622816744 4

Question Number : 62 Question Id : 5362284299 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following recursive Java function  $f$  that takes two long arguments and returns a float value.

```
public static float f(long m, long n) {  
    float result = (float)m / (float)n;  
    if ( $m < 0$  ||  $n < 0$ ) return 0.0f;  
    else result =  $f(m + 2, n + 3)$   
    return result  
}
```

Which of the following real values best approximates the value of  $f(18, 2)$ ?

- (1) 0.2
- (2) 0.4
- (3) 0.6
- (4) 0.8

Options :

- 53622816745 .
- 53622816746 2
- 53622816747 3
- 53622816748 4

Question Number : 62 Question Id : 5362284299 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following recursive Java function  $f$  that takes two long arguments and returns a float value.

```
public static float f(long m, long n) {  
    float result = (float)m / (float)n;  
    if (m < 0 || n < 0) return 0.0f;  
    else result = f(m + 2, n + 3)  
    return result  
}
```

Which of the following real values best approximates the value of  $f(18, 2)$

- (1) 0.2
- (2) 0.4
- (3) 0.6
- (4) 0.8

Options :

- 53622816745 .
- 53622816746 2
- 53622816747 3
- 53622816748 4

Question Number : 63 Question Id : 5362284300 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The data node and name node in HADOOP are

- (1) Worker Node and Master Node respectively
- (2) Master Node and Worker Node respectively
- (3) Both Worker Nodes
- (4) Both Master Nodes

Options :

- 53622816749 .
- 53622816750 2
- 53622816751 3
- 53622816752 4

Question Number : 63 Question Id : 5362284300 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The data node and name node in HADOOP are

- (1) Worker Node and Master Node respectively
- (2) Master Node and Worker Node respectively
- (3) Both Worker Nodes
- (4) Both Master Nodes

Options :

- 53622816749 .
- 53622816750 2
- 53622816751 3
- 53622816752 4

Question Number : 64 Question Id : 5362284301 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a relational schema  $S = (U, V, W, X, Y, Z)$  on which the following functional dependencies hold.

$\{U \rightarrow V, VW \rightarrow X, Y \rightarrow W, X \rightarrow U\}$

Which are the candidate keys among following options?

- (1) UY VY
- (2) UY VY XY
- (3) UYZ, VYZ, VWZ
- (4) UYZ, VYZ XYZ

Options :

- 53622816753 .
- 53622816754 2
- 53622816755 3
- 53622816756 4

Question Number : 64 Question Id : 5362284301 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a relational schema  $S = (U, V, W, X, Y, Z)$  on which the following functional dependencies hold.

$\{U \rightarrow V, VW \rightarrow X, Y \rightarrow W, X \rightarrow U\}$

Which are the candidate keys among following options?

- (1) UY VY
- (2) UY, VY XY
- (3) UYZ, VYZ, VWZ
- (4) UYZ, VYZ XYZ

Options :

53622816753 1  
53622816754 2  
53622816755 3  
53622816756 4

Question Number : 65 Question Id : 5362284302 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a hypothetical machine with 3 pages of physical memory, 5 pages of virtual memory, and  $\langle A, B, C, D, A, B, E, A, B, C, D, E, B, A, B \rangle$  as the stream of page references by an application. If P and Q are the number of page faults that the application would incur with FIFO and LRU page replacement algorithms respectively, then  $(P, Q) = \underline{\hspace{2cm}}$  (Assuming enough space for storing 3 page frames)

- (1) (11, 10)
- (2) (12, 11)
- (3) (10, 11)
- (4) (11, 12)

Options :

53622816757 1  
53622816758 2  
53622816759 3  
53622816760 4

Question Number : 65 Question Id : 5362284302 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a hypothetical machine with 3 pages of physical memory, 5 pages of virtual memory, and  $\langle A, B, C, D, A, B, E, A, B, C, D, E, B, A, B \rangle$  as the stream of page references by an application. If P and Q are the number of page faults that the application would incur with FIFO and LRU page replacement algorithms respectively, then  $(P, Q) = \underline{\hspace{2cm}}$  (Assuming enough space for storing 3 page frames)

- (1) (11, 10)
- (2) (12, 11)
- (3) (10, 11)
- (4) (11, 12)

Options :

53622816757 1  
53622816758 2  
53622816759 3  
53622816760 4

Question Number : 66 Question Id : 5362284303 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Consider a disk system having 60 cylinders. Disk requests are received by a disk drive for cylinders 10, 22, 20, 2, 40, 6 and 38, in that order. Assuming the disk head is currently at cylinder 20, what is the time taken to satisfy all the requests if it takes 2 milliseconds to move from one cylinder to adjacent one and Shortest Seek Time First (SSTF) algorithm is used?

- (1) 240 milliseconds
- (2) 96 milliseconds
- (3) 120 milliseconds
- (4) 112 milliseconds

Options :

53622816761 .

53622816762 2

53622816763 3

53622816764 4

Question Number : 66 Question Id : 5362284383 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a disk system having 60 cylinders. Disk requests are received by a disk drive for cylinders 10, 22, 20, 2, 40, 6 and 38, in that order. Assuming the disk head is currently at cylinder 20, what is the time taken to satisfy all the requests if it takes 2 milliseconds to move from one cylinder to adjacent one and Shortest Seek Time First (SSTF) algorithm is used?

- (1) 240 milliseconds
- (2) 96 milliseconds
- (3) 120 milliseconds
- (4) 112 milliseconds

Options :

53622816761 .

53622816762 2

53622816763 3

53622816764 4

Question Number : 67 Question Id : 5362284384 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Suppose you have a Linux file system where the block size is 2K bytes, a disk address is 32 bits, and an i node contains the disk addresses of the first 12 direct blocks of file, a single indirect block, and a double indirect block. Approximately, what is the largest file that can be represented by an i node?

- |                |                |
|----------------|----------------|
| (1) 513 Kbytes | (2) 513 MBytes |
| (3) 537 Mbytes | (4) 537 KBytes |

Options :

- 53622816765 .
- 53622816766 2
- 53622816767 3
- 53622816768 4

Question Number : 67 Question Id : 5362284304 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Suppose you have a Linux file system where the block size is 2K bytes, a disk address is 32 bits, and an i node contains the disk addresses of the first 12 direct blocks of file, a single indirect block, and a double indirect block. Approximately, what is the largest file that can be represented by an i node?

- |                |                |
|----------------|----------------|
| (1) 513 Kbytes | (2) 513 MBytes |
| (3) 537 Mbytes | (4) 537 KBytes |

Options :

- 53622816765 .
- 53622816766 2
- 53622816767 3
- 53622816768 4

Question Number : 68 Question Id : 5362284305 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a single level page table system, with the page table stored in the memory. If the hit rate to TLB is 80%, and it takes 15 nanoseconds to search the TLB, and 150 nanoseconds to access the main memory, then what is the effective memory access time in nanoseconds?

- |         |         |
|---------|---------|
| (1) 185 | (2) 195 |
| (3) 205 | (4) 175 |

Options :

- 53622816769 .
- 53622816770 2
- 53622816771 3
- 53622816772 4

Question Number : 68 Question Id : 5362284305 Question Type : MCQ Option Shuffling : No Is Question

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Consider a single level page table system, with the page table stored in the memory. If the hit rate to TLB is 80%, and it takes 15 nanoseconds to search the TLB, and 150 nanoseconds to access the main memory, then what is the effective memory access time, in nanoseconds?

- |         |         |
|---------|---------|
| (1) 185 | (2) 195 |
| (3) 205 | (4) 175 |

**Options :**

53622816769. 1

53622816770. 2

53622816771. 3

53622816772. 4

**Question Number : 69 Question Id : 5362284306 Question Type : MCQ Option Shuffling : No Is Question**

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Which of the following UML diagrams has a static view?

- |                           |                      |
|---------------------------|----------------------|
| (1) Collaboration diagram | (2) Use Case diagram |
| (3) State chart diagram   | (4) Activity diagram |

**Options :**

53622816773. 1

53622816774. 2

53622816775. 3

53622816776. 4

**Question Number : 69 Question Id : 5362284306 Question Type : MCQ Option Shuffling : No Is Question**

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Which of the following UML diagrams has a static view?

- |                           |                      |
|---------------------------|----------------------|
| (1) Collaboration diagram | (2) Use Case diagram |
| (3) State chart diagram   | (4) Activity diagram |

**Options :**

53622816773. 1

53622816774. 2

53622816775. 3

53622816776. 4

**Question Number : 70 Question Id : 5362284307 Question Type : MCQ Option Shuffling : No Is Question**

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Modifying the software by restructuring is called

- |                            |                            |
|----------------------------|----------------------------|
| (1) Adaptive maintenance   | (2) Corrective maintenance |
| (3) Perfective maintenance | (4) Preventive maintenance |

Options :

53622816777 1  
53622816778 2  
53622816779 3  
53622816780 4

Question Number : 70 Question Id : 5362284307 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Modifying the software by restructuring is called

- |                            |                            |
|----------------------------|----------------------------|
| (1) Adaptive maintenance   | (2) Corrective maintenance |
| (3) Perfective maintenance | (4) Preventive maintenance |

Options :

53622816777 1  
53622816778 2  
53622816779 3  
53622816780 4

Question Number : 71 Question Id : 5362284308 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A Company has a choice of two languages  $L_1$  and  $L_2$  to develop a software for their client. Number of LOC required to develop an application in  $L_2$  is thrice the LOC in language  $L_1$ . Also, software has to be maintained for next 10 years. Various parameters for two languages are given below to decide which language should be preferred for development.

PARAMETER	$L_1$	$L_2$
Man-year needed for development	LOC/1000	LOC/1000
Development cost	Rs 70,000	Rs 90,000
Cost of Maintenance per year	Rs 1,00,000	Rs 40,000

Total cost of project include cost of development and maintenance. What is the LOC for  $L_1$  for which cost of developing the software with both languages must be same?

- |          |          |
|----------|----------|
| (1) 2000 | (2) 6000 |
| (3) 3000 | (4) 5000 |

Options :

53622816781 1  
53622816782 2  
53622816783 3  
53622816784 4

Question Number : 71 Question Id : 5362284308 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A Company has a choice of two languages  $L_1$  and  $L_2$  to develop a software for their client. Number of LOC required to develop an application in  $L_2$  is thrice the LOC in language  $L_1$ . Also, software has to be maintained for next 10 years. Various parameters for two languages are given below to decide which language should be preferred for development.

PARAMETER	$L_1$	$L_2$
Man-year needed for development	LOC/1000	LOC/1000
Development cost	Rs 70,000	Rs 90,000
Cost of Maintenance per year	Rs 1,00,000	Rs 40,000

Total cost of project include cost of development and maintenance. What is the LOC for  $L_1$  for which cost of developing the software with both languages must be same?

- (1) 2000 (2) 6000  
(3) 3000 (4) 5000

Options :

53622816781 .

53622816782 2

53622816783 3

53622816784 4

Question Number : 72 Question Id : 5362284309 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A Software project was estimated at 864 Function Points. A six person team will be assigned to project consisting of a requirement gathering person, one designer, two programmers and two testers. The salary of the designer is ₹70,000 per month, requirement gatherer is ₹50,000 per month, programmer is ₹60,000 per month and a tester is ₹60,000 per month. Average productivity for the team is 12 FP per person month. Which of the following represents the projected cost of the project?

- (1) ₹33,20,000 (2) ₹43,20,000  
(3) ₹33,10,000 (4) ₹22,10,000

Options :

53622816785 .

53622816786 2

53622816787 3

53622816788 4

Question Number : 72 Question Id : 5362284309 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A Software project was estimated at 864 Function Points. A six person team will be assigned to project consisting of a requirement gathering person, one designer, two programmers and two testers. The salary of the designer is ₹70,000 per month, requirement gatherer is ₹50,000 per month, programmer is ₹60,000 per month and a tester is ₹60,000 per month. Average productivity for the team is 12 FP per person month. Which of the following represents the projected cost of the project?

- |                |                |
|----------------|----------------|
| (1) ₹33,20,000 | (2) ₹43,20,000 |
| (3) ₹33,10,000 | (4) ₹22,10,000 |

Options :

53622816785 .  
 53622816786 2  
 53622816787 3  
 53622816788 4

Question Number : 73 Question Id : 5362284310 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A complete  $n$  ary tree is a tree in which each node has  $n$  children or no children. Let  $I$  be the number of internal nodes and  $L$  be the number of leaves in a complete  $n$  ary tree. If  $L=41$  and  $I=10$ . What is the value of  $n$ ?

- |       |       |
|-------|-------|
| (1) 3 | (2) 4 |
| (3) 5 | (4) 6 |

Options :

53622816789 .  
 53622816790 2  
 53622816791 3  
 53622816792 4

Question Number : 73 Question Id : 5362284310 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A complete  $n$  ary tree is a tree in which each node has  $n$  children or no children. Let  $I$  be the number of internal nodes and  $L$  be the number of leaves in a complete  $n$  ary tree. If  $L=41$  and  $I=10$ . What is the value of  $n$ ?

- |       |       |
|-------|-------|
| (1) 3 | (2) 4 |
| (3) 5 | (4) 6 |

Options :

53622816789 .  
 53622816790 2  
 53622816791 3  
 53622816792 4

Question Number : 74 Question Id : 5362284311 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a binary max heap containing  $n$  numbers, the smallest element can be found in time.

- |            |                          |
|------------|--------------------------|
| (1) $O(n)$ | (2) $O(\log_2 n)$        |
| (3) $O(1)$ | (4) $O(\log_2 \log_2 n)$ |

Options :

53622816793 1

53622816794 2

53622816795 3

53622816796 4

Question Number : 74 Question Id : 5362284311 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a binary max heap containing  $n$  numbers, the smallest element can be found in time

- |            |                          |
|------------|--------------------------|
| (1) $O(n)$ | (2) $O(\log_2 n)$        |
| (3) $O(1)$ | (4) $O(\log_2 \log_2 n)$ |

Options :

53622816793 1

53622816794 2

53622816795 3

53622816796 4

Question Number : 75 Question Id : 5362284312 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If algorithm A and another algorithm B take  $\log_2(n)$  and  $\sqrt{n}$  microseconds respectively to solve a problem, then the largest size  $n$  of a problem these algorithms can solve respectively in one second are \_\_\_\_\_ and \_\_\_\_\_

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| (1) $2^{10^6}$ and $10^6$         | (2) $2^{10^6}$ and $10^{12}$         |
| (3) $2^{10^6}$ and $6 \cdot 10^6$ | (4) $2^{10^6}$ and $6 \cdot 10^{12}$ |

Options :

53622816797 1

53622816798 2

53622816799 3

53622816800 4

Question Number : 75 Question Id : 5362284312 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If algorithm A and another algorithm B take  $\log_2(n)$  and  $\sqrt{n}$  microseconds respectively to solve a problem, then the largest size  $n$  of a problem these algorithms can solve respectively in one second are \_\_\_\_\_ and \_\_\_\_\_

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| (1) $2^{10^6}$ and $10^6$         | (2) $2^{10^6}$ and $10^{12}$         |
| (3) $2^{10^6}$ and $6 \cdot 10^6$ | (4) $2^{10^6}$ and $6 \cdot 10^{12}$ |

Options :

53622816797 .

53622816798 2

53622816799 3

53622816800 4

Question Number : 76 Question Id : 5362284313 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $G$  be a directed graph whose vertex set is the set of numbers from 1 to 100. There is an edge from a vertex  $i$  to a vertex  $j$  if and only if either  $j = i + 1$  or  $j = 3i$ . The minimum number of edges in a path in  $G$  from vertex 1 to vertex 100 is \_\_\_\_\_

- |        |        |
|--------|--------|
| (1) 28 | (2) 99 |
| (3) 4  | (4) 7  |

Options :

53622816801 .

53622816802 2

53622816803 3

53622816804 4

Question Number : 76 Question Id : 5362284313 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $G$  be a directed graph whose vertex set is the set of numbers from 1 to 100. There is an edge from a vertex  $i$  to a vertex  $j$  if and only if either  $j = i + 1$  or  $j = 3i$ . The minimum number of edges in a path in  $G$  from vertex 1 to vertex 100 is \_\_\_\_\_

- |        |        |
|--------|--------|
| (1) 28 | (2) 99 |
| (3) 4  | (4) 7  |

Options :

53622816801 1

53622816802 2

53622816803 3

53622816804 4



Question Number : 77 Question Id : 5362284314 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider  $L = L_1 \cap L_2$

Where  $L_1 = \{0^m 1^m 20^n 1^n \mid m, n \geq 0\}$

$L_2 = \{0^m 1^n 2^k \mid m, n, k \geq 0\}$

Then, the language  $L$  is

- (1) Recursively enumerable but not context free
- (2) Regular
- (3) Context free but not regular
- (4) Not recursive

Options :

53622816805 .

53622816806 2

53622816807 3

53622816808 4

Question Number : 77 Question Id : 5362284314 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider  $L = L_1 \cap L_2$

Where  $L_1 = \{0^m 1^m 20^n 1^n \mid m, n \geq 0\}$

$L_2 = \{0^m 1^n 2^k \mid m, n, k \geq 0\}$

Then, the language  $L$  is

- (1) Recursively enumerable but not context free
- (2) Regular
- (3) Context free but not regular
- (4) Not recursive

Options :

53622816805 .

53622816806 2

53622816807 3

53622816808 4

Question Number : 78 Question Id : 5362284315 Question Type : MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $L_1$  and  $L_2$  be languages over  $\Sigma = \{a, b\}$  represented by the regular expressions  $a^* + b)^*$  and  $(a + b)^*$  respectively

Which of the following is true with respect to the two languages?

- |                       |                           |
|-----------------------|---------------------------|
| (1) $L_1 \subset L_2$ | (2) $L_2 \subset L_1$     |
| (3) $L_1 = L_2$       | (4) $L_1 \cap L_2 = \phi$ |

Options :

53622816809 .  
53622816810 2  
53622816811 3  
53622816812 4

Question Number : 78 Question Id : 5362284315 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $L_1$  and  $L_2$  be languages over  $\Sigma = \{a, b\}$  represented by the regular expressions  $(a^* + b)^*$  and  $(a + b)^*$  respectively

Which of the following is true with respect to the two languages?

- |                       |                           |
|-----------------------|---------------------------|
| (1) $L_1 \subset L_2$ | (2) $L_2 \subset L_1$     |
| (3) $L_1 = L_2$       | (4) $L_1 \cap L_2 = \phi$ |

Options :

53622816809 .  
53622816810 2  
53622816811 3  
53622816812 4

Question Number : 79 Question Id : 5362284316 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is true?

- |   |
|---|
| (1) The union of two context free languages is context free.                                      |
| (2) The intersection of two context free languages is context free                                |
| (3) The complement of a context free language is context free.                                    |
| (4) If a language is context free it can always be accepted by a deterministic pushdown automaton |

Options :

53622816813 .  
53622816814 2  
53622816815 3  
53622816816 4

Question Number : 79 Question Id : 5362284316 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is true?

- (1) The union of two context free languages is context free.
- (2) The intersection of two context free languages is context free
- (3) The complement of a context free language is context free.
- (4) If a language is context free it can always be accepted by a deterministic pushdown automaton

Options :

536228168.3.1

536228168.4.2

536228168.5.3

536228168.6.4

Question Number : 80 Question Id : 5362284317 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is not an intermediate code form?

- (1) Syntax trees
- (2) Three address codes
- (3) Quadruples
- (4) Post-fix Notation

Options :

536228168.7.1

536228168.8.2

536228168.9.3

53622816820.4

Question Number : 80 Question Id : 5362284317 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is not an intermediate code form?

- (1) Syntax trees
- (2) Three address codes
- (3) Quadruples
- (4) Post fix Notation

Options :

536228168.7.1

53622816818.2

536228168.9.3

53622816820.4

Question Number : 81 Question Id : 5362284318 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a code with only four valid code words 0000000000 0000011111 1111100000 and 1111111111. This code has distance 5. If the code word arrived is 0000000111 then the original code word must be \_\_\_\_\_.

(1) 0000011111

(2) 0000000000

(3) 1111100000

(4) 1111111111

Options :

53622816821 .

53622816822 2

53622816823 3

53622816824 4

Question Number : 81 Question Id : 5362284318 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a code with only four valid code words 0000000000, 0000011111, 1111100000 and 1111111111. This code has distance 5. If the code word arrived is 0000000111 then the original code word must be \_\_\_\_\_.

(1) 0000011111

(2) 0000000000

(3) 1111100000

(4) 1111111111

Options :

53622816821 .

53622816822 2

53622816823 3

53622816824 4

Question Number : 82 Question Id : 5362284319 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Using RSA public key cryptosystem, if  $P = 3$ ,  $q = 11$  and  $d = 7$  find the value of  $e$  and encrypt the number 19.

(1) 20, 19

(2) 33, 11

(3) 3, 28

(4) 77, 28

Options :

53622816825 .

53622816826 2

53622816827 3

53622816828 4

Question Number : 82 Question Id : 5362284319 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Using RSA public key cryptosystem. if  $P = 3$ ,  $q = 11$  and  $d = 7$  find the value of  $e$  and encrypt the number '19'

- |            |            |
|------------|------------|
| (1) 20, 19 | (2) 33, 11 |
| (3) 3, 28  | (4) 77, 28 |

Options :

53622816825 1  
53622816826 2  
53622816827 3  
53622816828 4

Question Number : 83 Question Id : 5362284320 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Protocols in which the sender sends one frame and then waits for an acknowledgement before proceeding for next frame are called as \_\_\_\_\_.

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| (1) Simplex protocols               | (2) Unrestricted simplex protocols |
| (3) Simplex stop and wait protocols | (4) Restricted simplex protocols   |

Options :

53622816829  
53622816830 2  
53622816831 3  
53622816832 4

Question Number : 83 Question Id : 5362284320 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Protocols in which the sender sends one frame and then waits for an acknowledgement before proceeding for next frame are called as \_\_\_\_\_.

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| (1) Simplex protocols               | (2) Unrestricted simplex protocols |
| (3) Simplex stop and wait protocols | (4) Restricted simplex protocols   |

Options :

53622816829 ,  
53622816830 2  
53622816831 3  
53622816832 4

Question Number : 84 Question Id : 5362284321 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The period of a signal is 100ms. Then the frequency of this signal in kilohertz is \_\_\_\_\_

(1) 10

(2)  $10^{-1}$

(3)  $10^{-2}$

(4)  $10^{-3}$

Options :

53622816833 .

53622816834 2

53622816835 3

53622816836 4

Question Number : 84 Question Id : 5362284321 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The period of a signal is 100ms. Then the frequency of this signal in kilohertz is \_\_\_\_\_

(1) 10

(2)  $10^{-1}$

(3)  $10^{-2}$

(4)  $10^{-3}$

Options :

53622816833 .

53622816834 2

53622816835 3

53622816836 4

Question Number : 85 Question Id : 5362284322 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The process of removing details from a given state representation is called \_\_\_\_\_

(1) Extraction

(2) Mining

(3) Selection

(4) Abstraction

Options :

53622816837 .

53622816838 2

53622816839 3

53622816840 4

Question Number : 85 Question Id : 5362284322 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The process of removing details from a given state representation is called \_\_\_\_\_

- |                |                 |
|----------------|-----------------|
| (1) Extraction | (2) Mining      |
| (3) Selection  | (4) Abstraction |

Options :

53622816837 .

53622816838 2

53622816839 3

53622816840 4

Question Number : 86 Question Id : 5362284323 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT true in problem solving in artificial intelligence?

- (1) Implements heuristic search techniques
- (2) Solution steps are not explicit
- (3) Knowledge is imprecise
- (4) It works on or implements repetition mechanism

Options :

53622816841 1

53622816842 2

53622816843 3

53622816844 4

Question Number : 86 Question Id : 5362284323 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT true in problem solving in artificial intelligence?

- (1) Implements heuristic search techniques
- (2) Solution steps are not explicit
- (3) Knowledge is imprecise
- (4) It works on or implements repetition mechanism

Options :

53622816841 .

53622816842 2

53622816843 3

53622816844 4

Question Number : 87 Question Id : 5362284324 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If  $f(x) = x$  is my friend, and  $p(x) = x$  is perfect, then correct logical translation of the statement "some of my friends are not perfect" is \_\_\_\_\_

- |   |  |
|---|--|
| (1) $\forall x (f(x) \wedge \neg p(x))$ | (2) $\exists x (f(x) \wedge \neg p(x))$      |
| (3) $\neg (f(x) \wedge \neg p(x))$      | (4) $\exists x (\neg f(x) \wedge \neg p(x))$ |

Options :

53622816845 1  
53622816846 2  
53622816847 3  
53622816848 4

Question Number 87 Question Id 5362284324 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If  $f(x) = x$  is my friend, and  $p(x) = x$  is perfect, then correct logical translation of the statement "some of my friends are not perfect" is \_\_\_\_\_

- |   |  |
|---|--|
| (1) $\forall x (f(x) \wedge \neg p(x))$ | (2) $\exists x (f(x) \wedge \neg p(x))$      |
| (3) $\neg (f(x) \wedge \neg p(x))$      | (4) $\exists x (\neg f(x) \wedge \neg p(x))$ |

Options :

53622816845 1  
53622816846 2  
53622816847 3  
53622816848 4

Question Number 88 Question Id 5362284325 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What kind of clauses are available in conjunctive normal form?

- (1) Disjunction of literals
- (2) Disjunction of variables
- (3) Conjunction of literals
- (4) Conjunction of variables

Options :

53622816849 1  
53622816850 2  
53622816851 3  
53622816852 4

Question Number 88 Question Id 5362284325 Question Type MCQ Option Shuffling No Is Question Mandatory : No



Correct Marks : 2 Wrong Marks : 0

What kind of clauses are available in conjunctive normal form?

- (1) Disjunction of literals
- (2) Disjunction of variables
- (3) Conjunction of literals
- (4) Conjunction of variables

Options :

53622816849 .

53622816850 2

53622816851 3

53622816852 4

Question Number : 89 Question Id : 5362284326 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following properties

- A. Reflexive
- B. Antisymmetric
- C. Symmetric

Let  $A = \{a, b, c, d, e, f, g\}$  and  $R = \{(a, a), (b, b), (c, d), (c, g), (d, g), (e, e), (f, f), (g, g)\}$  be a relation on A. Which of the following property (properties) is (are) satisfied by the relation R?

- (1) Only A
- (2) Only C
- (3) Both A and B
- (4) B and not A

Options :

53622816853 .

53622816854 2

53622816855 3

53622816856 4

Question Number : 89 Question Id : 5362284326 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following properties

- A. Reflexive
- B. Antisymmetric
- C. Symmetric

Let  $A = \{a, b, c, d, e, f, g\}$  and  $R = \{(a, a), (b, b), (c, d), (c, g), (d, g), (e, e), (f, f), (g, g)\}$  be a relation on A. Which of the following property (properties) is (are) satisfied by the relation R?

- (1) Only A
- (2) Only C
- (3) Both A and B
- (4) B and not A

Options :

- 53622816853 1
- 53622816854 2
- 53622816855 3
- 53622816856 4

Question Number : 90 Question Id : 5362284327 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following argument with premise  $\forall x(P(x) \vee Q(x))$  and conclusion  $(\forall x P(x)) \wedge (\forall x Q(x))$

(A) $\forall x(P(x) \vee Q(x))$	Premise
(B) $P(c) \vee Q(c)$	Universal instantiation from (A)
(C) $P(c)$	Simplification from (B)
(D) $\forall x P(x)$	Universal Generalization of (C)
(E) $Q(c)$	Simplification from (B)
(F) $\forall x Q(x)$	Universal Generalization of (E)
(G) $(\forall x P(x)) \wedge (\forall x Q(x))$	Conjunction of (D) and (F)

- (1) This is a valid argument.
- (2) Steps (C) and (E) are not correct inferences
- (3) Steps (D) and (F) are not correct inferences
- (4) Step (G) is not a correct inference

Options :

- 53622816857 1
- 53622816858 2
- 53622816859 3
- 53622816860 4

Question Number : 90 Question Id : 5362284327 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following argument with premise  $\forall x(P(x) \vee Q(x))$  and conclusion  $(\forall x P(x)) \wedge (\forall x Q(x))$

(A) $\forall x(P(x) \vee Q(x))$	Premise
(B) $P(c) \vee Q(c)$	Universal instantiation from (A)
(C) $P(c)$	Simplification from (B)
(D) $\forall x P(x)$	Universal Generalization of (C)
(E) $Q(c)$	Simplification from (B)
(F) $\forall x Q(x)$	Universal Generalization of (E)
(G) $(\forall x P(x)) \wedge (\forall x Q(x))$	Conjunction of (D) and (F)

- (1) This is a valid argument.
- (2) Steps (C) and (E), are not correct inferences
- (3) Steps (D) and (F) are not correct inferences
- (4) Step (G) is not a correct inference

Options :

53622816857 1

53622816858 2

53622816859 3

53622816860 4

Question Number : 91 Question Id : 5362284328 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are applications of symbol table?

- (A) Storage allocation
- (B) Checking type compatibility
- (C) Suppressing duplicate error messages

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A), (B) and (C)

Options :

53622816861 1

53622816862 2

53622816863 3

53622816864 4

Question Number : 91 Question Id : 5362284328 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are applications of symbol table?

- (A) Storage allocation
- (B) Checking type compatability
- (C) Suppressing duplicate error messages

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A), (B) and (C)

Options :

53622816861 1

53622816862 2

53622816863 3

53622816864 4

Question Number : 92 Question Id : 5362284329 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Simplified expression/s for following Boolean function

$F(A, B, C, D) = \sum(0, 1, 2, 3, 6, 12, 13, 14, 15)$  is/are

- (A)  $A'B' + AB + A'CD'$
- (B)  $A'B' + AB + A'CD$
- (C)  $A'B' + AB + BC'D$
- (D)  $A'B' + AB + BCD'$

Choose the correct answer from the options given below

- (1) (A) only
- (2) (B) only
- (3) (A) and (B) only
- (4) (B) and (D) only

Options :

53622816865 1

53622816866 2

53622816867 3

53622816868 4

Question Number 92 Question Id 5362284329 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks 2 Wrong Marks : 0

Simplified expression/s for following Boolean function

$F(A, B, C, D) = \sum(0, 1, 2, 3, 6, 12, 13, 14, 15)$  is/are

- (A)  $A'B' + AB + A'C'D'$
- (B)  $A'B' + AB + A'CD$
- (C)  $A'B' + AB + BC'D'$
- (D)  $A'B' + AB + BCD'$

Choose the correct answer from the options given below

- (1) (A) only
- (2) (B) only
- (3) (A) and (B) only
- (4) (B) and (D) only

Options :

- 53622816865 1
- 53622816866 2
- 53622816867 3
- 53622816868 4

Question Number 93 Question Id 5362284330 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks 2 Wrong Marks : 0

Which of the following statements with respect to K segment pipelining are true?

- (A) Maximum speedup that a pipeline can provide is  $k$  theoretically
- (B) It is impossible to achieve maximum speedup  $k$  in  $k$  segment pipeline
- (C) All segments in pipeline take same time in computation.

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (B) and (C) only
- (3) (A) and (C) only
- (4) (A) (B) and (C)

Options :

- 53622816869 1
- 53622816870 2
- 53622816871 3
- 53622816872 4

Question Number 93 Question Id 5362284330 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements with respect to K segment pipeline are true?

- (A) Maximum speedup that a pipeline can provide is  $k$  theoretically
- (B) It is impossible to achieve maximum speedup  $k$  in  $k$  segment pipeline
- (C) All segments in pipeline take same time in computation.

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (B) only | (2) (B) and (C) only |
| (3) (A) and (C) only | (4) (A), (B) and (C) |

Options :

53622816869 .

53622816870 2

53622816871 3

53622816872 4

Question Number : 94 Question Id : 5362284331 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements with respect to multiprocessor system are true?

- (A) Multiprocessor system is controlled by one operating system.
- (B) In Multiprocessor system, multiple computers are connected by the means of communication lines.
- (C) Multiprocessor system is classified as multiple instruction stream and multiple data stream system.

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) only         | (2) (A) and B) only  |
| (3) (A) and (C) only | (4) (B) and (C) only |

Options :

53622816873 .

53622816874 2

53622816875 3

53622816876 4

Question Number : 94 Question Id : 5362284331 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements with respect to multiprocessor system are true"

- (A) Multiprocessor system is controlled by one operating system.
- (B) In Multiprocessor system, multiple computers are connected by the means of communication lines.
- (C) Multiprocessor system is classified as multiple instruction stream and multiple data stream system.

Choose the correct answer from the options given below

- (1) (A) only
- (2) (A) and (B) only
- (3) (A) and (C) only
- (4) (B) and (C) only

Options :

53622816873 1  
53622816874 2  
53622816875 3  
53622816876 4

Question Number : 95 Question Id : 5362284332 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

Which of the following statements regarding XML is are True"

- A, XML is a set of tags designed to tell browsers how to display text and images in a web page.
- (B XML defines a syntax for representing data but the meaning of data varies from application to application.
- C) < Letter > < LETTER > and < lette > are three different tags in XML.

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A), (B) and (C)

Options :

53622816877 1  
53622816878 2  
53622816879 3  
53622816880 4

Question Number : 95 Question Id : 5362284332 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

Which of the following statements regarding XML is are True?

- (A) XML is a set of tags designed to tell browsers how to display text and images in a web page.
- (B) XML defines a syntax for representing data but the meaning of data varies from application to application.
- (C) `< Letter >` `< LETTER >` and `< lette >` are three different tags in XML.

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A), (B) and (C)

Options :

53622816877 1  
53622816878 2  
53622816879 3  
53622816880 4

Question Number : 96 Question Id : 5362284333 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the context of 3D Computer graphics which of the following statements is are correct?

- (A) Under perspective projection, each set of parallel lines in the object do not stay parallel in the image (except those that are parallel to the viewplane to start with).
- (B) Applying a perspective transformation in the graphics pipeline to a vertex involves dividing by its z coordinate
- (C) Perspective transformation is a linear transformation.

Choose the correct answer from the options given below.

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A), (B) and (C)

Options :

53622816881 1  
53622816882 2  
53622816883 3  
53622816884 4

Question Number : 96 Question Id : 5362284333 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



In the context of 3D Computer graphics, which of the following statements is/are correct?

- A) Under perspective projection, each set of parallel lines in the object do not stay parallel in the image (except those that are parallel to the viewplane to start with).
- B) Applying a perspective transformation in the graphics pipeline to a vertex involves dividing by its z coordinate.
- C) Perspective transformation is a linear transformation.

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (B) only | (2) (A) and (C) only |
| (3) (B) and (C) only | (4) (A), (B) and (C) |

Options :

53622816881 .

53622816882 2

53622816883 3

53622816884 4

Question Number : 97 Question Id : 5362284334 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Concerning phong shading and Gouraud shading in a 3D scene, which of the following statements are true?

- (A) Gouraud shading requires more computation than phong shading.
- (B) Gouraud shading linearly interpolates the color of an interior pixel from the color at the vertices.
- (C) Phong shading interpolates over the normal vectors specified at the vertices.

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (B) only | (2) (A) and (C) only |
| (3) (B) and (C) only | (4) (A), (B) and (C) |

Options :

53622816885 .

53622816886 2

53622816887 3

53622816888 4

Question Number : 97 Question Id : 5362284334 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Concerning phong shading and Gouraud shading in a 3D scene which of the following statements are true?

- (A) Gouraud shading requires more computation than phong shading
- (B) Gouraud shading linearly interpolates the color of an interior pixel from the color at the vertices
- (C) Phong shading interpolates over the normal vectors specified at the vertices

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A) (B) and (C)

Options :

- 53622816885 .
- 53622816886 2
- 53622816887 3
- 53622816888 4

Question Number : 98 Question Id : 5362284335 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the context of concurrency control, a given pair of operations in a schedule is called conflict schedule if

- (A) At least one of the operations is write operation.
- (B) Both the operations are performed on the same data item.
- (C) Both the operations are performed by different transactions.
- (D) Both the operations are performed on different data items

Choose the correct answer from the options given below.

- (1) (A) and (B) only
- (2) (A), (B) and (C) only
- (3) (A), (C) and (D) only
- (4) (C) and (D) only

Options :

- 53622816889 1
- 53622816890 2
- 53622816891 3
- 53622816892 4

Question Number : 98 Question Id : 5362284335 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the context of concurrency control, a given pair of operations in a schedule is called conflict schedule if

- (A) At least one of the operations is write operation.
- (B) Both the operations are performed on the same data item.
- (C) Both the operations are performed by different transactions.
- (D) Both the operations are performed on different data items

Choose the correct answer from the options given below.

- |                           |                           |
|---------------------------|---------------------------|
| (1) (A) and (B) only      | (2) (A), (B) and (C) only |
| (3) (A), (C) and (D) only | (4) (C) and (D) only      |

Options :

53622816889 1

53622816890 2

53622816891 3

53622816892 4

Question Number : 99 Question Id : 5362284336 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Software reliability is described with respect to

- (A) Execution Time
- (B) Calendar Time
- (C) Clock Time

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (B) only | (2) (B) and (C) only |
| (3) (A), (B) and (C) | (4) (A) and (C) only |

Options :

53622816893 1

53622816894 2

53622816895 3

53622816896 4

Question Number : 99 Question Id : 5362284336 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Software reliability is described with respect to

- (A) Execution Time
- (B) Calendar Time
- (C) Clock Time

Choose the correct answer from the options given below:

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (B) only | (2) (B) and (C) only |
| (3) (A), (B) and (C) | (4) (A) and (C) only |

Options :

- 53622816893 1
- 53622816894 2
- 53622816895 3
- 53622816896 4

Question Number : 100 Question Id : 5362284337 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

To create an object behavioral model the analyst performs the following steps.

- (A) Evaluates all use cases
- (B) Builds state transition diagram for the system.
- (C) Reviews the object behaviour model to verify accuracy and consistency
- (D) Identifies events that do not derive the interaction sequence

Choose the correct answer from the options given below:

- |                           |                           |
|---------------------------|---------------------------|
| (1) (A), (B) and (C) only | (2) (A), (B) and (D) only |
| (3) (B), (C) and (D) only | (4) (A), (C) and (D) only |

Options :

- 53622816897 1
- 53622816898 2
- 53622816899 3
- 53622816900 4

Question Number : 100 Question Id : 5362284337 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

To create an object behavioral model, the analyst performs the following steps

- (A) Evaluates all use-cases
- (B) Builds state transition diagram for the system.
- (C) Reviews the object behaviour model to verify accuracy and consistency
- (D) Identifies events that do not derive the interaction sequence

Choose the correct answer from the options given below

- |                           |                           |
|---------------------------|---------------------------|
| (1) (A), (B) and (C) only | (2) (A), (B) and (D) only |
| (3) (B), (C) and (D) only | (4) (A), (C) and (D) only |

Options :

- 53622816897 .
- 53622816898 2
- 53622816899 3
- 53622816900 4

Question Number : 101 Question Id : 5362284338 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is are behavioral testing techniques ?

- (A) Equivalence Partitioning
- (B) Graph Based Testing Method
- (C) Boundary Value Analysis
- (D) Data flow Testing
- (E) Loop Testing

Choose the correct answer from the options given below

- |                      |                           |
|----------------------|---------------------------|
| (1) (B) and (D) only | (2) (A), (B) and (C) only |
| (3) (D) and (E) only | (4) (A), (C) and (E) only |

Options :

- 53622816901 1
- 53622816902 2
- 53622816903 3
- 53622816904 4

Question Number : 101 Question Id : 5362284338 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is are behavioral testing technique(s)?

- (A) Equivalence Partitioning
- (B) Graph Based Testing Method
- (C) Boundary Value Analysis
- (D) Data flow Testing
- (E) Loop Testing

Choose the correct answer from the options given below;

- (1) (B) and (D) only
- (2) (A), (B) and (C) only
- (3) (D) and (E) only
- (4) (A), (C) and (E) only

Options :

- 53622816901 .
- 53622816902 2
- 53622816903 3
- 53622816904 4

Question Number : 102 Question Id : 5362284339 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The running time of an algorithm is  $O(g(n))$  if and only if

- (A) its worst case running time is  $O(g(n))$  and its best case running time is  $\Omega(g(n))$  ( $O = \text{big } O$ ).
- (B) its worst case running time is  $\Omega(g(n))$  and its best case running time is  $O(g(n))$ . ( $O = \text{big } O$ )
- (C)  $O(g(n)) \cap \Omega(g(n)) \neq \emptyset$  ( $O = \text{big } O$ )
- (D)  $O(g(n)) \cap \omega(g(n))$  is non-empty set. ( $\omega = \text{small } o$ )

Choose the correct answer from the options given below

- (1) (A) only
- (2) (B) only
- (3) (C) only
- (4) (D) only

Options :

- 53622816905 .
- 53622816906 2
- 53622816907 3
- 53622816908 4

Question Number : 102 Question Id : 5362284339 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The running time of an algorithm is  $O(g(n))$  if and only if

- (A) its worst case running time is  $O(g(n))$  and its best case running time is  $\Omega(g(n))$  ( $O = \text{big } O$ )
- (B) its worst case running time is  $\Omega(g(n))$  and its best case running time is  $O(g(n))$ , ( $O = \text{big } O$ )
- (C)  $O(g(n)) = \Omega(g(n))$  ( $O = \text{big } O$ )
- (D)  $O(g(n)) \cap \omega(g(n))$  is non-empty set, ( $\omega = \text{small } o$ )

Choose the correct answer from the options given below

- (1) (A) only
- (2) (B) only
- (3) (C) only
- (4) (D) only

Options :

- 53622816905 .
- 53622816906 2
- 53622816907 3
- 53622816908 4

Question Number : 103 Question Id : 5362284340 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements:

- (A) Any tree is 2-colorable
- (B) A graph  $G$  has no cycles of even length if it is bipartite
- (C) A graph  $G$  is 2-colorable if it is bipartite
- (D) A graph  $G$  can be colored with  $d+1$  colors if  $d$  is the maximum degree of any vertex in the graph  $G$
- (E) A graph  $G$  can be colored with  $O(\log n)$  colors if it has  $O(n^2)$  edges

Choose the correct answer from the options given below

- (1) (C) and (E) are incorrect
- (2) (B) and (C) are incorrect
- (3) (B) and (E) are incorrect
- (4) (A) and (D) are incorrect

Options :

- 53622816909 .
- 53622816910 2
- 53622816911 3
- 53622816912 4

Question Number : 103 Question Id : 5362284340 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements:

- (A) Any tree is 2-colorable
- (B) A graph  $G$  has no cycles of even length if it is bipartite
- (C) A graph  $G$  is 2-colorable if it is bipartite
- (D) A graph  $G$  can be colored with  $d+1$  colors if  $d$  is the maximum degree of any vertex in the graph  $G$
- (E) A graph  $G$  can be colored with  $O(\log v)$  colors if it has  $O(v^2)$  edges.

Choose the correct answer from the options given below

- |                               |                               |
|-------------------------------|-------------------------------|
| (1) (C) and (E) are incorrect | (2) (B) and (C) are incorrect |
| (3) (B) and (E) are incorrect | (4) (A) and (D) are incorrect |

Options :

- 53622816909 1
- 53622816910 2
- 53622816911 3
- 53622816912 4

Question Number : 104 Question Id : 5362284341 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which among the following statement(s) is (are) true?

- (A) A hash function takes a message of arbitrary length and generates a fixed length code
- (B) A hash function takes a message of fixed length and generates a code of variable length.
- (C) A hash function may give same hash value for distinct messages

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) only         | (2) (B) and (C) only |
| (3) (A) and (C) only | (4) (B) only         |

Options :

- 53622816913
- 53622816914 2
- 53622816915 3
- 53622816916 4

Question Number : 104 Question Id : 5362284341 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Which among the following statement(s) is (are) true?

- (A) A hash function takes a message of arbitrary length and generates a fixed length code
- (B) A hash function takes a message of fixed length and generates a code of variable length.
- (C) A hash function may give same hash value for distinct messages

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) only         | (2) (B) and (C) only |
| (3) (A) and (C) only | (4) (B) only         |

Options :

536228169.3 .

53622816914 2

536228169 5 3

536228169 6. 4

Question Number : 105 Question Id : 5362284342 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $G_1$  and  $G_2$  be arbitrary context free languages and  $R$  an arbitrary regular language  
Consider the following problems:

- (A) Is  $L(G_1) = L(G_2)$ ?
- (B) Is  $L(G_2) \subseteq L(G_1)$ ?
- (C) Is  $L(G_1) \cap R$ ?

Which of the problems are undecidable?

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) only         | (2) (B) only         |
| (3) (A) and (B) only | (4) (A), (B) and (C) |

Options :

536228169.7 .

53622816918. 2

536228169.9 3

53622816920. 4

Question Number : 105 Question Id : 5362284342 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $G_1$  and  $G_2$  be arbitrary context free languages and  $R$  an arbitrary regular language  
Consider the following problems:

- (A) Is  $L(G_1) = L(G_2)$ ?
- (B) Is  $L(G_2) \subseteq L(G_1)$ ?
- (C) Is  $L(G_1) \cap R$ ?

Which of the problems are undecidable?

Choose the correct answer from the options given below

- (1) (A) only
- (2) (B) only
- (3) (A) and (B) only
- (4) (A), (B) and (C)

Options :

536228169.7 .  
536228169.8. 2  
536228169.9 3  
53622816920 4

Question Number : 106 Question Id : 5362284343 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following languages

$$L_1 = \{a^{2^k} \mid k \text{ is an integer}\}$$

$$L_2 = \{a^{2^k} \mid k \geq 0\}$$

$$L_3 = \{ww \mid w \in \{a, b\}^*\}$$

Which of the languages is (are) regular?

Choose the correct answer from the options given below

- (1)  $L_1$  and  $L_2$  only
- (2)  $L_1$  and  $L_3$  only
- (3)  $L_1$  only
- (4)  $L_2$  only

Options :

53622816921  
53622816922 ?  
53622816923 3  
53622816924 4

Question Number : 106 Question Id : 5362284343 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following languages

$$L_1 = \{a^{2^k} \mid k \text{ is an integer}\}$$

$$L_2 = \{a^{2^k} \mid k \geq 0\}$$

$$L_3 = \{ww \mid w \in \{a, b\}^*\}$$

Which of the languages is (are) regular?

Choose the correct answer from the options given below

- |                          |                          |
|--------------------------|--------------------------|
| (1) $L_1$ and $L_2$ only | (2) $L_1$ and $L_3$ only |
| (3) $L_1$ only           | (4) $L_2$ only           |

Options :

- 53622816921 .  
53622816922 2  
53622816923 3  
53622816924 4

Question Number : 107 Question Id : 5362284344 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following grammars is (are) ambiguous?

(A)  $S \rightarrow SS \mid asb \mid bsa \mid \lambda$

(B)  $S \rightarrow asbs \mid bsas \mid \lambda$

(C)  $S \rightarrow aAB$

$$A \rightarrow bBb$$

$$B \rightarrow A \mid \lambda \text{ where } \lambda \text{ denotes empty string}$$

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (C) only | (2) (B) only         |
| (3) (B) and (C) only | (4) (A) and (B) only |

Options :

- 53622816925 .  
53622816926 2  
53622816927 3  
53622816928 4

Question Number : 107 Question Id : 5362284344 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following grammars is (are) ambiguous?

(A)  $s \rightarrow ss \mid asb \mid bsa \mid \lambda$

(B)  $s \rightarrow asbs \mid bsas \mid \lambda$

(C)  $s \rightarrow aAB$

$A \rightarrow bBb$

$B \rightarrow A \mid \lambda$  where  $\lambda$  denotes empty string

Choose the correct answer from the options given below

(1) (A) and (C) only

(2) (B) only

(3) (B) and (C) only

(4) (A) and (B) only

Options :

53622816925 .

53622816926 2

53622816927 3

53622816928 4

Question Number : 108 Question Id : 5362284345 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following cloud concepts is/are related to pooling and sharing of resources?

(A) Virtual Memory

(B) Service

(C) Virtualization

Choose the correct answer from the options given below

(1) (C) only

(2) (A, and (B) only

(3) (A) only

(4) (B) only

Options :

53622816929 .

53622816930 2

53622816931 3

53622816932 4

Question Number : 108 Question Id : 5362284345 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following cloud concepts are related to pooling and sharing of resources?

- (A) Virtual Memory
- (B) Service
- (C) Virtualization

Choose the correct answer from the options given below

- (1) (C) only
- (2) (A) and (B) only
- (3) (A) only
- (4) (B) only

Options :

- 53622816929 1
- 53622816930 2
- 53622816931 3
- 53622816932 4

Question Number : 109 Question Id : 5362284346 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Post office protocol (POP) is a message access protocol which is used to extract message for client. In this regard, which of the following are true?

- (A) POP has two modes, Delete mode and keep
- (B) In Delete mode mail is deleted from mail box after each retrieval
- (C) In Delete mode mail is deleted from mail box before each retrieval
- (D) In keep mode, mail is deleted before retrieval
- (E) In keep mode, mail remains in mail box after retrieval

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A), (D) and (E) only
- (3) (A), (B), (C) and (D) only
- (4) (A), (B) and (E) only

Options :

- 53622816933 1
- 53622816934 2
- 53622816935 3
- 53622816936 4

Question Number : 109 Question Id : 5362284346 Question Type : MCQ Option Shuffling , No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Post office protocol (POP) is a message access protocol which is used to extract message for client. In this regard, which of the following are true?

- (A) POP has two modes, Delete mode and keep
- (B) In Delete mode mail is deleted from mail box after each retrieval
- (C) In Delete mode mail is deleted from mail box before each retrieval
- (D) In keep mode, mail is deleted before retrieval
- (E) In keep mode, mail remains in mail box after retrieval

Choose the correct answer from the options given below

- |                                |                           |
|--------------------------------|---------------------------|
| (1) (A) and (B) only           | (2) (A), (D) and (E) only |
| (3) (A), (B), (C) and (D) only | (4) (A), (B) and (E) only |

Options :

- 53622816933 1
- 53622816934 2
- 53622816935 3
- 53622816936 4

Question Number : 110 Question Id : 5362284347 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Firewall is a device that filters access to the protected network from the outside network. Firewalls can filter the packets on the basis of

- (A) Source IP Address
- (B) Destination IP Address
- (C) TCP Source Port
- (D) UDP Source Port
- (E) TCP Destination Port

Choose the correct answer from the options given below

- |                           |                                     |
|---------------------------|-------------------------------------|
| (1) (A), (B) and (C) only | (2) (B) and (E) only                |
| (3) (C) and (D) only      | (4) (A), (B), (C), (D) and (E) only |

Options :

- 53622816937 1
- 53622816938 2
- 53622816939 3
- 53622816940 4

Question Number : 110 Question Id : 5362284347 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Firewall is a device that filters access to the protected network from the outside network  
Firewalls can filter the packets on the basis of

- (A) Source IP Address
- (B) Destination IP Address
- (C) TCP Source Port
- (D) UDP Source Port
- (E) TCP Destination Port

Choose the correct answer from the options given below

- (1) (A), (B) and (C) only
- (2) (B) and (E) only
- (3) (C) and (D) only
- (4) (A), (B), (C), (D) and (E) only

Options :

- 53622816937 1
- 53622816938 2
- 53622816939 3
- 53622816940 4

Question Number : 111 Question Id : 5362284348 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the statement below,

A person who is radical (R) is electable (E) if he/she is conservative (C), but otherwise is not electable.

Few probable logical assertions of the above sentence are given below

- (A)  $(R \wedge E) \Leftrightarrow C$
- (B)  $R \Rightarrow (E \Leftrightarrow C)$
- (C)  $R \Rightarrow ((C \Rightarrow E) \vee \neg E)$
- (D)  $(\neg R \vee \neg E \vee C) \wedge (\neg R \vee \neg C \vee E)$

Which of the above logical assertions are true?

Choose the correct answer from the options given below;

- (1) (B) only
- (2) (C) only
- (3) (A) and (C) only
- (4) (B) and (D) only

Options :

- 53622816941 1
- 53622816942 2
- 53622816943 3
- 53622816944 4

Question Number : 111 Question Id : 5362284348 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the statement below

A person who is radical ( $R$ ) is electable ( $E$ ) if he/she is conservative ( $C$ ) but otherwise is not electable.

Few probable logical assertions of the above sentence are given below

- (A)  $(R \wedge E) \Leftrightarrow C$
- (B)  $R \rightarrow (E \Leftrightarrow C)$
- (C)  $R \Rightarrow ((C \Rightarrow E) \vee \neg E)$
- (D)  $(\neg R \vee \neg E \vee C) \wedge (\neg R \vee \neg C \vee E)$

Which of the above logical assertions are true?

Choose the correct answer from the options given below

- (1) (B) only
- (2) (C) only
- (3) (A) and (C) only
- (4) (B) and (D) only

Options :

- 53622816941 .
- 53622816942 2
- 53622816943 3
- 53622816944 4

Question Number : 112 Question Id : 5362284349 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

- A A sentence  $\alpha$  entails another sentence  $\beta$  if  $\beta$  is true in few worlds where  $\alpha$  is true
- B Forward chaining and backward chaining are very natural reasoning algorithms for knowledge bases in Horn form
- C Sound inference algorithms derive all sentences that are entailed
- D Propositional logic does not scale to environments of unbounded size.

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (B) and (C) only
- (3) (C) and (D) only
- (4) (B) and (D) only

Options :

- 53622816945 .
- 53622816946 2
- 53622816947 3
- 53622816948 4

Question Number : 112 Question Id : 5362284349 Question Type : MCQ Option Shuffling : No Is Question



Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

- A) A sentence  $\alpha$  entails another sentence  $\beta$  if  $\beta$  is true in few worlds where  $\alpha$  is true
- B) Forward chaining and backward chaining are very natural reasoning algorithms for knowledge bases in Horn form
- C) Sound inference algorithms derive all sentences that are entailed
- D) Propositional logic does not scale to environments of unbounded size.

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (B) only | (2) (B) and (C) only |
| (3) (C) and (D) only | (4) (B) and (D) only |

Options :

53622816945 1

53622816946 2

53622816947 3

53622816948 4

Question Number : 113 Question Id : 5362284350 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

- (A) Minimax search is breadth first; it processes all the nodes at a level before moving to a node in next level.
- (B) The effectiveness of the alpha beta pruning is highly dependent on the order in which the states are examined.
- (C) The alpha beta search algorithm computes the same optimal moves as minimax algorithm
- (D) Optimal play in games of imperfect information does not require reasoning about the current and future belief states of each player

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) (A) and (C) only | (2) (A) and (D) only |
| (3) (B) and (C) only | (4) (C) and (D) only |

Options :

53622816949 1

53622816950 2

53622816951 3

53622816952 4

Question Number : 113 Question Id : 5362284350 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

- (A) Minimax search is breadth first; it processes all the nodes at a level before moving to a node in next level.
- (B) The effectiveness of the alpha beta pruning is highly dependent on the order in which the states are examined
- (C) The alpha beta search algorithm computes the same optimal moves as minimax algorithm
- (D) Optimal play in games of imperfect information does not require reasoning about the current and future belief states of each player

Choose the correct answer from the options given below

- (1) (A) and (C) only
- (2) (A) and (D) only
- (3) (B) and (C) only
- (4) (C) and (D) only

Options :

53622816949 .

53622816950. 2

53622816951. 3

53622816952. 4

Question Number : 114 Question Id : 5362284351 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

Let  $R_1 = \{(1,1), (2,2), (3,3)\}$  and  $R_2 = \{(1,1), (1,2), (1,3), (1,4)\}$

List I

List II

- |                    |  |
|--------------------|--|
| (A) $R_1 \cup R_2$ | (I) $\{(1,1), (1,2), (1,3), (1,4), (2,2), (3,3)\}$ |
| (B) $R_1 - R_2$    | (II) $\{(1,1)\}$                                   |
| (C) $R_1 \cap R_2$ | (III) $\{(1,2), (1,3), (1,4)\}$                    |
| (D) $R_2 - R_1$    | (IV) $\{(2,2), (3,3)\}$                            |

Choose the correct answer from the options given below;

- (1) A I, B II, C IV, D III
- (2) A I, B IV, C III, D II
- (3) A I, B III, C II, D IV
- (4) A I, B IV, C II, D III

Options :

53622816953 .

53622816954. 2

53622816955. 3

53622816956. 4

Question Number : 114 Question Id : 5362284351 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

Let  $R_1 = \{(1,1), (2,2), (3,3)\}$  and  $R_2 = \{(1,1), (1,2), (1,3), (1,4)\}$

List I

List II

(A)  $R_1 \cup R_2$

(I)  $\{(1,1), (1,2), (1,3), (1,4), (2,2), (3,3)\}$

(B)  $R_1 - R_2$

(II)  $\{(1,1)\}$

(C)  $R_1 \cap R_2$

(III)  $\{(1,2), (1,3), (1,4)\}$

(D)  $R_2 - R_1$

(IV)  $\{(2,2), (3,3)\}$

Choose the correct answer from the options given below;

(1) A I, B II, C IV, D III

(2) A I, B IV, C III, D II

(3) A I, B III, C II, D IV

(4) A I, B IV, C II, D III

Options :

53622816953 .

53622816954 2

53622816955 3

53622816956 4

Question Number : 115 Question Id : 5362284352 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

List II

A) Handshaking

(I) I/O interface informs the CPU that device is ready for transfer

B) Programmed I/O

(II) requires two control signals working in opposite directions

C) Interrupt initiated I/O

(III) has local memory & control large set of I/O devices.

D) I/O processor

(IV) require CPU to check the I/O flag & perform transfer

Choose the correct answer from the options given below

(1) A I, B II, C III, D IV

(2) A II, B IV, C III, D I

(3) A II, B IV, C I, D III

(4) A IV, B III, C II, D I

Options :

53622816957 .

53622816958 2

53622816959 3

53622816960 4

Question Number : 115 Question Id : 5362284352 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match Last I with Last II

**Last I**

- A) Handshaking
- B) Programmed I/O
- C) Interrupt initiated I/O
- D) I/O processor

**Last II**

- (I) I/O interface informs the CPU that device is ready for transfer
- (II) requires two control signals working in opposite directions
- (III) has local memory & control large set of I/O devices.
- (IV) require CPU to check the I/O flag & perform transfer

Choose the correct answer from the options given below

- (1) A-I, B-II, C-III, D-IV
- (3) A-II, B-IV, C-I, D-III

- (2) A-II, B-IV, C-III, D-I
- (4) A-IV, B-III, C-II, D-I

**Options :**

53622816957 .  
53622816958 2  
53622816959 3  
53622816960 4

Question Number : 116 Question Id : 5362284353 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II. List I gives  $3 \times 3$  matrices representing 2D transformations and List-II shows the corresponding transformation diagrams.

List I (Matrix)

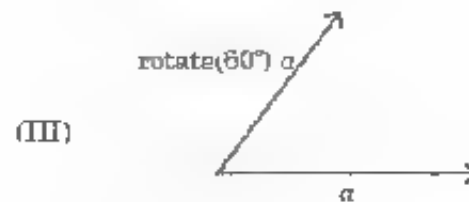
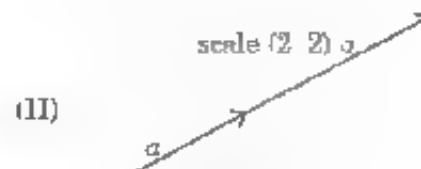
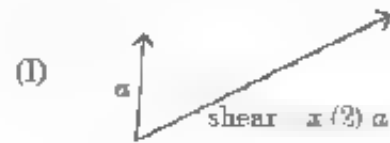
A)  $\begin{bmatrix} 2 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B)  $\begin{bmatrix} 1 & 0 & 2 \\ 0 & 1 & 2 \\ 0 & 0 & 1 \end{bmatrix}$

C)  $\begin{bmatrix} 0.5 & 0.866 & 0 \\ 0.866 & 0.5 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

(D)  $\begin{bmatrix} 1 & 2 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

List II (Transformation Diagram)



Choose the correct answer from the options given below.

(1) A-IV, B-II, C-III, D-I

(2) A-IV, B-III, C-II, D-I

(3) A-III, B-II, C-IV, D-I

(4) A-II, B-IV, C-III, D-I

Options :

53622816961 1

53622816962 2

53622816963 3

53622816964 4

Question Number : 116 Question Id : 5362284353 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II. List I gives  $3 \times 3$  matrices representing 2D transformations and List-II shows the corresponding transformation diagrams.

List I (Matrix)

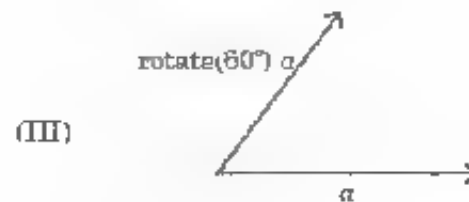
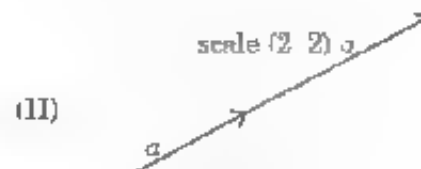
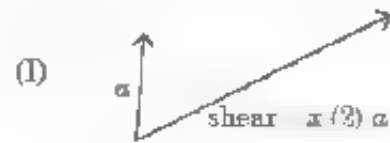
A)  $\begin{bmatrix} 2 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B)  $\begin{bmatrix} 1 & 0 & 2 \\ 0 & 1 & 2 \\ 0 & 0 & 1 \end{bmatrix}$

C)  $\begin{bmatrix} 0.5 & 0.866 & 0 \\ 0.866 & 0.5 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

(D)  $\begin{bmatrix} 1 & 2 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

List II (Transformation Diagram)



Choose the correct answer from the options given below.

(1) A-IV, B-II, C-III, D-I

(2) A-IV, B-III, C-II, D-I

(3) A-III, B-II, C-IV, D-I

(4) A-II, B-IV, C-III, D-I

Options :

53622816961 1

53622816962 2

53622816963 3

53622816964 4

Question Number : 117 Question Id : 5362284354 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

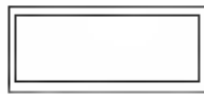
Correct Marks : 2 Wrong Marks : 0

Match List I with List II.

List I (E-R symbols)

List II (Description)

(A)



(I) Key Attribute Type

(B)



(II) Weak Entity Type

(C)



(III) Total Participation of Entity in a relation

(D)



(IV) Multivalued Attribute type

Choose the correct answer from the options given below

(1) A-II, B-IV, C-III, D-I

(2) A-IV, B-I, C-II, D-III

(3) A-II, B-I, C-IV, D-III

(4) A-III, B-IV, C-I, D-II

Options :

53622816965 .

53622816966 2

53622816967 3

53622816968 4

Question Number : 117 Question Id : 5362284354 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II.

List I (E-R symbols)

List II (Description)

(A)



(I) Key Attribute Type

(B)



(II) Weak Entity Type

(C)



(III) Total Participation of Entity in a relation

(D)



(IV) Multivalued Attribute type

Choose the correct answer from the options given below

(1) A-II, B-IV, C-III, D-I

(2) A-IV, B-I, C-II, D-III

(3) A-II, B-I, C-IV, D-III

(4) A-III, B-IV, C-I, D-II

Options :

53622816965 .

53622816966 2

53622816967 3

53622816968 4

Question Number : 118 Question Id : 5362284355 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Match List I with List II

With reference to CMM developed by Software Engineering Institute (SEI)

List I

List II

- |                |                          |
|----------------|--------------------------|
| (A) INITIAL    | (I) Process measurement  |
| (B) REPEATABLE | (II) Process definition  |
| (C) DEFINED    | (III) Project management |
| (D) MANAGED    | (IV) ADHOC               |

Choose the correct answer from the options given below.

- (1) A-III, B-IV, C-II, D-I
- (2) A-IV, B-III, C-I, D-II
- (3) A-IV, B-III, C-II, D-I
- (4) A-III, B-IV, C-I, D-II

Options :

53622816969 .  
53622816970 2  
53622816971 3  
53622816972 4

Question Number : 118 Question Id : 5362284355 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

With reference to CMM developed by Software Engineering Institute (SEI)

List I

List II

- |                |                          |
|----------------|--------------------------|
| (A) INITIAL    | (I) Process measurement  |
| (B) REPEATABLE | (II) Process definition  |
| (C) DEFINED    | (III) Project management |
| (D) MANAGED    | (IV) ADHOC               |

Choose the correct answer from the options given below.

- (1) A-III, B-IV, C-II, D-I
- (2) A-IV, B-III, C-I, D-II
- (3) A-IV, B-III, C-II, D-I
- (4) A-III, B-IV, C-I, D-II

Options :

53622816969 .  
53622816970 2  
53622816971 3

Question Number 119 Question Id 5362284356 Question Type MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I	List II
A) Branch-and-bound	(I) Keeps track of all partial paths which can be candidate for further exploration.
B) Steepest ascent hill climbing	(II) Detects difference between current state and goal state
(C) Constraint satisfaction	(III) Discovers problem state(s) that satisfy a set of constraints
D) Means-end analysis	(IV) Considers all moves from current state and selects best move

Choose the correct answer from the options given below

- (1) A-I, B-IV, C-III, D-II
- (2) A-I, B-II, C-III, D-IV
- (3) A-II, B-I, C-III, D-IV
- (4) A-II, B-IV, C-III, D-I

Options :

53622816973 1

53622816974 2

53622816975 3

53622816976 4

Question Number 119 Question Id 5362284356 Question Type MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

- (A) Branch-and-bound
- (B) Steepest ascent hill climbing
- (C) Constraint satisfaction
- (D) Means end analysis

List II

- (I) Keeps track of all partial paths which can be candidate for further exploration
- (II) Detects difference between current state and goal state
- (III) Discovers problem state(s) that satisfy a set of constraints.
- (IV) Considers all moves from current state and selects best move

Choose the correct answer from the options given below

- (1) A I, B IV, C III, D II
- (2) A I, B II, C III, D IV
- (3) A II, B I, C III, D IV
- (4) A II, B IV, C III, D I

Options :

- 53622816971 .
- 53622816974 2
- 53622816975 3
- 53622816976 4

Question Number : 120 Question Id : 5362284357 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match Last I with Last II

Last I		Last II	
(A)	Topological sort of DAG	(I)	$O(V + E)$
(B)	Kruskal's MST algorithm	(II)	$O(VE)$
(C)	Bellman-Ford's single-source shortest path algorithm	(III)	$\theta(V + E)$
(D)	Floyd-Warshall's all pair shortest path algorithm	(IV)	$\theta(V^3)$

Choose the correct answer from the options given below

- (1) A-I, B-III, C-IV, D-II
- (2) A-III, B-I, C-IV, D-II
- (3) A-III, B-I, C-II, D-IV
- (4) A-I, B-III, C-II, D-IV

Options :

- 53622816977 1
- 53622816978 2
- 53622816979 3
- 53622816980 4

Question Number : 120 Question Id : 5362284357 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match Last I with Last II

Last I		Last II	
A)	Topological sort of DAG	(I)	$O(V + E)$
B)	Kruskal's MST algorithm	(II)	$O(VE)$
C)	Bellman-Ford's single-source shortest path algorithm	(III)	$\theta(V + E)$
(D)	Floyd-Warshall's all pair shortest path algorithm	(IV)	$\theta(V^3)$

Choose the correct answer from the options given below

- (1) A-I, B-III, C-IV, D-II
- (2) A-III, B-I, C-IV, D-II
- (3) A-III, B-I, C-II, D-IV
- (4) A-I, B-III, C-II, D-IV

Options :

53622816977 1  
 53622816978 2  
 53622816979 3  
 53622816980 4

Question Number : 121 Question Id : 5362284358 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

$L_R$  : Regular language,  $L_{CF}$  : Context free language

$L_{REC}$  : Recursive language,  $L_{RE}$  : Recursively enumerable language.

List I

List II

- |                                     |                            |
|-------------------------------------|----------------------------|
| (A) Recursively Enumerable language | (I) $L_{REC} \cup L_{RE}$  |
| (B) Recursive language              | (II) $L_{CF} \cup L_{REC}$ |
| (C) Context Free language           | (III) $L_R^* \cap L_{CF}$  |

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) A-II, B-III, C-I | (2) A-III, B-I, C-II |
| (3) A-I, B-II, C-III | (4) A-II, B-I, C-III |

Options :

53622816981 1  
 53622816982 2  
 53622816983 3  
 53622816984 4

Question Number : 121 Question Id : 5362284358 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

$L_R$  : Regular language,  $L_{CF}$  : Context free language

$L_{REC}$  : Recursive language,  $L_{RE}$  : Recursively enumerable language.

List I

List II

- |                                     |                            |
|-------------------------------------|----------------------------|
| (A) Recursively Enumerable language | (I) $L_{REC} \cup L_{RE}$  |
| (B) Recursive language              | (II) $L_{CF} \cup L_{REC}$ |
| (C) Context Free language           | (III) $L_R^* \cap L_{CF}$  |

Choose the correct answer from the options given below

- |                      |                      |
|----------------------|----------------------|
| (1) A-II, B-III, C-I | (2) A-III, B-I, C-II |
| (3) A-I, B-II, C-III | (4) A-II, B-I, C-III |

Options :

53622816981 1

53622816982 2

53622816983 3

53622816984 4

Question Number : 122 Question Id : 5362284359 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

List II

- |  |                       |
|--|-----------------------|
| (A) Serial Line IP (SLIP)              | (I) Application layer |
| (B) Border Gateway Protocol (BGP)      | (II) Transport layer  |
| (C) User Data Protocol (UDP)           | (III) Data Link layer |
| (D) Simple Network Management Protocol | (IV) Network layer    |

Choose the correct answer from the options given below

- |                           |                           |
|---------------------------|---------------------------|
| (1) A-I B-II C-III D-IV   | (2) A-III, B-IV, C-II D-I |
| (3) A-II B-III, C-IV, D-I | (4) A-III B-I C-IV D-II   |

Options :

53622816985 .

53622816986 2

53622816987 3

53622816988 4

Question Number : 122 Question Id : 5362284359 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

List II

- |  |                       |
|--|-----------------------|
| (A) Serial Line IP (SLIP)              | (I) Application layer |
| (B) Border Gateway Protocol (BGP)      | (II) Transport layer  |
| (C) User Data Protocol (UDP)           | (III) Data Link layer |
| (D) Simple Network Management Protocol | (IV) Network layer    |

Choose the correct answer from the options given below

- |                           |                           |
|---------------------------|---------------------------|
| (1) A-I B-II, C-III, D-IV | (2) A-III, B-IV, C-II D-I |
| (3) A-II B-III, C-IV, D-I | (4) A-III B-I, C-IV D-II  |

Options :

53622816985 .

53622816986 2

53622816987 3

53622816988 4

Question Number : 123 Question Id : 5362284360 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

- (A) Greedy Best-First Search
- (B) A\*
- (C) Recursive Best First Search
- (D) SMA\*

List II

- (I) Space complexity is  $O(d)$  where  $d$  depth of the deepest optimal solution
- (II) Incomplete even if the search space is finite
- (III) Optimal if optimal solution is reachable; otherwise, returns the best reachable optimal solution.
- (IV) Computation and space complexity is too high.

Choose the correct answer from the options given below:

- (1) A-II, B-IV, C-I, D-III
- (2) A-II, B-III, C-I, D-IV
- (3) A-III, B-II, C-IV, D-I
- (4) A-III, B-IV, C-II, D-I

Options :

53622816789 .

53622816990. 2

53622816991. 3

53622816992. 4

Question Number : 123 Question Id : 5362284360 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I

- (A) Greedy Best-First Search
- (B) A\*
- (C) Recursive Best First Search
- (D) SMA\*

List II

- (I) Space complexity is  $O(d)$  where  $d$ -depth of the deepest optimal solution
- (II) Incomplete even if the search space is finite
- (III) Optimal if optimal solution is reachable; otherwise, returns the best reachable optimal solution.
- (IV) Computation and space complexity is too high.

Choose the correct answer from the options given below:

- (1) A-II, B-IV, C-I, D-III
- (2) A-II, B-III, C-I, D-IV
- (3) A-III, B-II, C-IV, D-I
- (4) A-III, B-IV, C-II, D-I

Options :

53622816989 .

53622816990 2

53622816991 3

53622816992 4

Question Number : 124 Question Id : 5362284361 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Find the lexicographic ordering of the bit strings given below based on the ordering  $0 < 1$

- (A) 001
- (B) 010
- (C) 011
- (D) 0001
- (E) 0101

Choose the correct answer from the options given below:

- (1)  $001 < 010 < 011 < 0001 < 0101$
- (2)  $0001 < 001 < 010 < 0101 < 011$
- (3)  $0001 < 0101 < 001 < 010 < 011$
- (4)  $001 < 010 < 0001 < 0101 < 011$

Options :

53622816993 .

53622816994 2

53622816995 3

53622816996 4

Question Number : 124 Question Id : 5362284361 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Find the lexicographic ordering of the bit strings given below based on the ordering  $0 < 1$

- (A) 001
- (B) 010
- (C) 011
- (D) 0001
- (E) 0101

Choose the correct answer from the options given below:

- (1)  $001 < 010 < 011 < 0001 < 0101$
- (2)  $0001 < 001 < 010 < 0101 < 011$
- (3)  $0001 < 0101 < 001 < 010 < 011$
- (4)  $001 < 010 < 0001 < 0101 < 011$

Options :

53622816993 .

53622816994 2

53622816995 3

53622816996 4



Question Number 125 Question Id 5362284362 Question Type MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

Arrange the following types of machine in descending order of complexity

- (A) SISD
- (B) MIMD
- (C) SIMD

Choose the correct answer from the options given below

- |             |             |
|-------------|-------------|
| (1) A, B, C | (2) C, B, A |
| (3) B, C, A | (4) C, A, B |

Options :

53622816997 1

53622816998 2

53622816999 3

53622817000 4

Question Number , 125 Question Id 5362284362 Question Type , MCQ Option Shuffling No Is Question Mandatory , No

Correct Marks : 2 Wrong Marks : 0

Arrange the following types of machine in descending order of complexity

- (A) SISD
- (B) MIMD
- (C) SIMD

Choose the correct answer from the options given below

- |             |             |
|-------------|-------------|
| (1) A, B, C | (2) C, B, A |
| (3) B, C, A | (4) C, A, B |

Options :

53622816997 ,

53622816998 2

53622816999 3

53622817000 4

Question Number , 126 Question Id , 5362284363 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are different properties of 3D projections from A-D. Identify the correct order on the basis of property true of (i) a perspective projection only, (ii) an orthographic projection only, (iii) both orthographic and projective transformations and (iv) neither orthographic nor projective transformation, respectively

- (A) Straight lines are mapped to straight lines.
- (B) Distances and angles are (in general) preserved
- (C) Far away objects appear the same size as closer ones.
- (D) Requires homogeneous coordinates in order for it to be encoded into a linear transformation

Choose the correct answer from the options given below

- (1) D, C, B, A
- (2) B, C, D, A
- (3) D, C, A, B
- (4) C, D, B, A

Options :

- 53622817001 1
- 53622817002 2
- 53622817003 3
- 53622817004 4

Question Number : 126 Question Id : 5362284363 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are different properties of 3D projections from A-D. Identify the correct order on the basis of property true of (i) a perspective projection only, (ii) an orthographic projection only, (iii) both orthographic and projective transformations and (iv) neither orthographic nor projective transformation, respectively

- (A) Straight lines are mapped to straight lines.
- (B) Distances and angles are (in general) preserved
- (C) Far away objects appear the same size as closer ones.
- (D) Requires homogeneous coordinates in order for it to be encoded into a linear transformation

Choose the correct answer from the options given below

- (1) D, C, B, A
- (2) B, C, D, A
- (3) D, C, A, B
- (4) C, D, B, A

Options :

- 53622817001 1
- 53622817002 2
- 53622817003 3
- 53622817004 4

Question Number : 127 Question Id : 5362284364 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following types of Cohesion from best to worst type

- (A) Logical Cohesion
- (B) Sequential Cohesion
- (C) Communication Cohesion
- (D) Temporal Cohesion
- (E) Procedural Cohesion

Choose the correct answer from the options given below

- |   |   |
|---|---|
| (1) $A \rightarrow D \rightarrow E \rightarrow C \rightarrow B$ | (2) $A \rightarrow E \rightarrow D \rightarrow C \rightarrow B$ |
| (3) $B \rightarrow E \rightarrow C \rightarrow D \rightarrow A$ | (4) $B \rightarrow C \rightarrow E \rightarrow D \rightarrow A$ |

Options :

- 53622817005 .
- 53622817006 2
- 53622817007 3
- 53622817008 4

Question Number : 127 Question Id : 5362284364 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following types of Cohesion from best to worst type.

- (A) Logical Cohesion
- (B) Sequential Cohesion
- (C) Communication Cohesion
- (D) Temporal Cohesion
- (E) Procedural Cohesion

Choose the correct answer from the options given below

- |   |   |
|---|---|
| (1) $A \rightarrow D \rightarrow E \rightarrow C \rightarrow B$ | (2) $A \rightarrow E \rightarrow D \rightarrow C \rightarrow B$ |
| (3) $B \rightarrow E \rightarrow C \rightarrow D \rightarrow A$ | (4) $B \rightarrow C \rightarrow E \rightarrow D \rightarrow A$ |

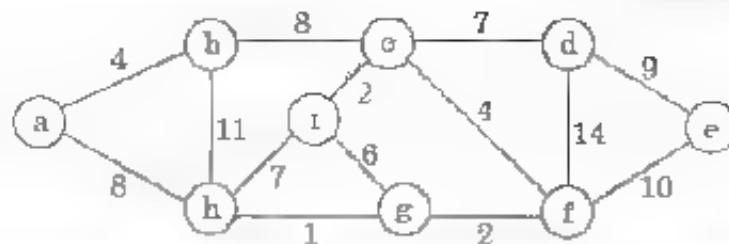
Options :

- 53622817005 .
- 53622817006 2
- 53622817007 3
- 53622817008 4

Question Number : 128 Question Id : 5362284365 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the undirected graph below:



Using Prim's algorithm to construct a minimum spanning tree starting with node a, which one of the following sequences of edges represents a possible order in which the edges would be added to construct the minimum spanning tree?

- (1) (a,b), (a,h), (g,h), (f,g), (c,f), (c,i), (c,d), (d,e)
- (2) (a,b), (b,h), (g,h), (g,i), (c,i), (c,f), (c,d), (d,e)
- (3) (a,b), (b,c), (c,i), (c,f), (f,g), (g,h), (c,d), (d,e)
- (4) (a,b), (g,h), (g,f), (c,f), (c,i), (f,e), (b,c), (d,e)

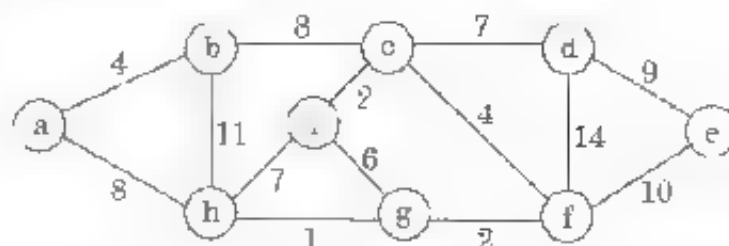
Options :

53622817009 .  
 53622817010 2  
 53622817011 3  
 53622817012 4

Question Number : 128 Question Id : 5362284365 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the undirected graph below:



Using Prim's algorithm to construct a minimum spanning tree starting with node a, which one of the following sequences of edges represents a possible order in which the edges would be added to construct the minimum spanning tree?

- (1) (a,b), (a,h), (g,h), (f,g), (c,f), (c,i), (c,d), (d,e)
- (2) (a,b), (b,h), (g,h), (g,i), (c,i), (c,f), (c,d), (d,e)
- (3) (a,b), (b,c), (c,i), (c,f), (f,g), (g,h), (c,d), (d,e)
- (4) (a,b), (g,h), (g,f), (c,f), (c,i), (f,e), (b,c), (d,e)

Options :

53622817009 .  
 53622817010 2

5362281701.3

5362281701.2 4

Question Number : 129 Question Id : 5362284366 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following regular expressions

(a)  $r = a(b + a)^*$

(b)  $s = a(a + b)^+$

(c)  $t = aa^*b$

Choose the correct answer from the options given below based on the relation between the languages generated by the regular expressions above:

(1)  $L(r) \subseteq L(s) \subseteq L(t)$

(2)  $L(r) \supseteq L(s) \supseteq L(t)$

(3)  $L(r) \supseteq L(t) \supseteq L(s)$

(4)  $L(s) \supseteq L(t) \supseteq L(r)$

Options :

5362281701.3 .

5362281701.4 2

5362281701.5 3

5362281701.6 4

Question Number : 129 Question Id : 5362284366 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following regular expressions

(a)  $r = a(b + a)^*$

(b)  $s = a(a + b)^+$

(c)  $t = aa^*b$

Choose the correct answer from the options given below based on the relation between the languages generated by the regular expressions above:

(1)  $L(r) \subseteq L(s) \subseteq L(t)$

(2)  $L(r) \supseteq L(s) \supseteq L(t)$

(3)  $L(r) \supseteq L(t) \supseteq L(s)$

(4)  $L(s) \supseteq L(t) \supseteq L(r)$

Options :

5362281701.3 .

5362281701.4 2

5362281701.5 3

5362281701.6 4

Question Number : 130 Question Id : 5362284367 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I :  $5$  divides  $n^5 - n$  whenever  $n$  is a nonnegative integer.

Statement II :  $6$  divides  $n^3 - n$  whenever  $n$  is a nonnegative integer

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

53622817017 1

53622817018 2

53622817019 3

53622817020 4

Question Number : 130 Question Id : 5362284367 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I :  $5$  divides  $n^5 - n$  whenever  $n$  is a nonnegative integer.

Statement II :  $6$  divides  $n^3 - n$  whenever  $n$  is a nonnegative integer

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

53622817017 1

53622817018 2

53622817019 3

53622817020 4

Question Number : 131 Question Id : 5362284368 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

- Statement I     Hardwired control unit can be optimized to produce fast mode of operation.  
Statement II     Indirect addressing mode needs two memory reference to fetch the operand

In the light of the above statements, choose the correct answer from the options given below

- (1)     Both Statement I and Statement II are true
- (2)     Both Statement I and Statement II are false
- (3)     Statement I is correct but Statement II is false
- (4)     Statement I is incorrect but Statement II is true

Options :

- 53622817021 .
- 53622817022 2
- 53622817023 3
- 53622817024 4

Question Number : 131 Question Id : 5362284368 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

- Statement I     Hardwired control unit can be optimized to produce fast mode of operation.  
Statement II     Indirect addressing mode needs two memory reference to fetch the operand

In the light of the above statements, choose the correct answer from the options given below

- (1)     Both Statement I and Statement II are true
- (2)     Both Statement I and Statement II are false
- (3)     Statement I is correct but Statement II is false
- (4)     Statement I is incorrect but Statement II is true.

Options :

- 53622817021 .
- 53622817022 2
- 53622817023 3
- 53622817024 4

Question Number : 132 Question Id : 5362284369 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I      Bezier curves are curves that interpolate all of their control points

Statement II      A cubic bezier curve has four control points

In the light of the above statements, choose the correct answer from the options given below

- (1)      Both Statement I and Statement II are true
- (2)      Both Statement I and Statement II are false
- (3)      Statement I is correct but Statement II is false
- (4)      Statement I is incorrect but Statement II is true

Options :

53622817025. 1

53622817026. 2

53622817027. 3

53622817028. 4

Question Number : 132 Question Id : 5362284369 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements.

Statement I      Bezier curves are curves that interpolate all of their control points

Statement II :      A cubic bezier curve has four control points

In the light of the above statements, choose the correct answer from the options given below

- (1)      Both Statement I and Statement II are true
- (2)      Both Statement I and Statement II are false
- (3)      Statement I is correct but Statement II is false
- (4)      Statement I is incorrect but Statement II is true.

Options :

53622817025. 1

53622817026. 2

53622817027. 3

53622817028. 4

Question Number : 133 Question Id : 5362284370 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



Given below are two statements

If two variables  $V_1$  and  $V_2$  are used for clustering then consider the following statements for  $k$  means clustering with  $k = 3$ :

Statement I If  $V_1$  and  $V_2$  have correlation of 1 the cluster centroid will be in straight line

Statement II If  $V_1$  and  $V_2$  have correlation of 0 the cluster centroid will be in straight line

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

53622817029 1

53622817030 2

53622817031 3

53622817032 4

Question Number 133 Question Id 5362284370 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

If two variables  $V_1$  and  $V_2$  are used for clustering then consider the following statements for  $k$  means clustering with  $k = 3$ .

Statement I If  $V_1$  and  $V_2$  have correlation of 1 the cluster centroid will be in straight line

Statement II If  $V_1$  and  $V_2$  have correlation of 0 the cluster centroid will be in straight line

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

53622817029 1

53622817030 2

53622817031 3

53622817032 4

Question Number 134 Question Id 5362284371 Question Type MCQ Option Shuffling No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Assuming that the system call `fork()` never fails, consider the following C programs P1 and P2 executed on a UNIX / Linux system

<pre>/* P1 */ int main () {     fork ();     fork ();     fork ();     printf("Happy\n") }</pre>	<pre>/* P2 */ int main () {     fork ();     printf("Happy\n");     fork();     printf("Happy\n");     fork( ..     printf("Happy\n") }</pre>
--	---

Statement I P1 displays "Happy" 8 times

Statement II P2 displays "Happy" 12 times.

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true.

Options :

53622817033. 1

53622817034. 2

53622817035. 3

53622817036. 4

Question Number : 134 Question Id : 5362284371 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Assuming that the system call `fork ( )` never fails, consider the following C programs P1 and P2 executed on a UNIX / Linux system

<pre>/* P1 */ int main ( ) {     fork ( );     fork ( );     fork ( );     printf("Happy\n"); }</pre>	<pre>/* P2 */ int main ( , {     fork ( );     printf("Happy\n");     fork ( );     printf("Happy\n");     fork ( ,     printf("Happy\n") }</pre>
---	---

Statement I P1 displays "Happy" 8 times

Statement II P2 displays "Happy" 12 times.

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true.

Options :

- 53622817033 1
- 53622817034 2
- 53622817035 3
- 53622817036 4

Question Number 135 Question Id 5362284372 Question Type MCQ Option Shuffling No Is Question Mandatory No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements:

Statement I    Quality control involves the series of inspections, reviews and tests used throughout the software process, to ensure each work product meets the requirements placed upon it.

Statement II . Quality assurance consists of auditing and reporting functions of management.

In the Light of the above statements, choose the correct answer from the options given below.

- (1)    Both Statement I and Statement II are true.
- (2)    Both Statement I and Statement II are false.
- (3)    Statement I is correct but Statement II is false.
- (4)    Statement I is incorrect but Statement II is true.

Options :

53622817037 1

53622817038 2

53622817039 3

53622817040 4

Question Number : 135 Question Id : 5362284372 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements:

Statement I    Quality control involves the series of inspections, reviews and tests used throughout the software process, to ensure each work product meets the requirements placed upon it.

Statement II    Quality assurance consists of auditing and reporting functions of management.

In the Light of the above statements, choose the correct answer from the options given below.

- (1)    Both Statement I and Statement II are true.
- (2)    Both Statement I and Statement II are false.
- (3)    Statement I is correct but Statement II is false.
- (4)    Statement I is incorrect but Statement II is true.

Options :

53622817037 1

53622817038 2

53622817039 3

53622817040 4

Question Number : 136 Question Id : 5362284373 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $G$  be a simple undirected graph  $T_D$  be a DFS tree on  $G$ , and  $T_B$  be the BFS tree on  $G$ . Consider the following statements.

Statement I. No edge of  $G$  is a cross with respect to  $T_D$

Statement II For every edge  $(u, v)$  of  $G$ , if  $u$  is at depth  $i$  and  $v$  is at depth  $j$  in  $T_B$  then  $|i - j| = 1$

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true.

Options :

53622817041 1

53622817042 2

53622817043 3

53622817044 4

Question Number : 136 Question Id : 5362284373 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $G$  be a simple undirected graph  $T_D$  be a DFS tree on  $G$  and  $T_B$  be the BFS tree on  $G$ . Consider the following statements.

Statement I. No edge of  $G$  is a cross with respect to  $T_D$

Statement II For every edge  $(u, v)$  of  $G$ , if  $u$  is at depth  $i$  and  $v$  is at depth  $j$  in  $T_B$  then  $|i - j| = 1$

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true.

Options :

53622817041 1

53622817042 2

53622817043 3

53622817044 4

Question Number : 137 Question Id : 5362284374 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements.

Statement I    The problem "Is  $L_1 \cap L_2 = \phi$ ?" is undecidable for context sensitive languages  $L_1$  and  $L_2$

Statement II . The problem "Is  $W \in L$ ?" is decidable for context sensitive language  $L$ , (where  $W$  is a string)

In the light of the above statements choose the correct answer from the options given below

- (1)    Both Statement I and Statement II are true
- (2)    Both Statement I and Statement II are false
- (3)    Statement I is correct but Statement II is false
- (4)    Statement I is incorrect but Statement II is true

Options :

- 53622817045 .
- 53622817046 2
- 53622817047 3
- 53622817048 4

Question Number : 137 Question Id : 5362284374 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements.

Statement I    The problem "Is  $L_1 \cap L_2 = \phi$ ?" is undecidable for context sensitive languages  $L_1$  and  $L_2$

Statement II . The problem "Is  $W \in L$ ?" is decidable for context sensitive language  $L$ , (where  $W$  is a string)

In the light of the above statements choose the correct answer from the options given below

- (1)    Both Statement I and Statement II are true
- (2)    Both Statement I and Statement II are false
- (3)    Statement I is correct but Statement II is false
- (4)    Statement I is incorrect but Statement II is true

Options :

- 53622817045 .
- 53622817046 2
- 53622817047 3
- 53622817048 4

Question Number : 138 Question Id : 5362284375 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I The laws of nature put two fundamental limits on data rate of a channel. The H.Nyquist limit restricts the number of independent samples per second to twice the band width in a Noiseless channel

Statement II Shannon's major result about no sed channel is that maximum data rate of a channel whose band width is H Hz. and whose signal-to-noise ratio is S/N is given by

$$\text{Maximum number of bits/sec} = H \log_2(1 + \frac{S}{N})$$

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true.

Options :

53622817049 .

53622817050 2

53622817051 3

53622817052 4

Question Number : 138 Question Id : 5362284375 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements

Statement I The laws of nature put two fundamental limits on data rate of a channel. The H.Nyquist limit restricts the number of independent samples per second to twice the band width in a Noiseless channel

Statement II Shannon's major result about no sed channel is that maximum data rate of a channel whose band width is H Hz. and whose signal-to-noise ratio is S/N is given by

$$\text{Maximum number of bits/sec} = H \log_2(1 + \frac{S}{N})$$

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true.

Options :

53622817049 .

53622817050 2

53622817051 3

53622817052 4

Question Number : 139 Question Id : 5362284376 Question Type : MCQ Option Shuffling : No Is Question

**Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Given below are two statements:

Statement I In Caesar Cipher each letter of Plain text is replaced by another letter for encryption.

Statement II Diffie-Hellman algorithm is used for exchange of secret key

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

**Options :**

53622817053 .

53622817054 2

53622817055 3

53622817056 4

**Question Number : 139 Question Id : 5362284376 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Given below are two statements:

Statement I In Caesar Cipher each letter of Plain text is replaced by another letter for encryption.

Statement II Diffie-Hellman algorithm is used for exchange of secret key

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

**Options :**

53622817053 .

53622817054 2

53622817055 3

53622817056 4

**Question Number : 140 Question Id : 5362284377 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**



Given below are two statements

Statement I A genetic algorithm is a stochastic hill climbing search in which a large population of states is maintained.

Statement II In nondeterministic environments, agents can apply AND OR search to generate contingent plans that reach the goal regardless of which outcomes occur during execution.

In the light of the above statements choose the Correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

- 53622817057 .
- 53622817058 .
- 53622817059 .
- 53622817060 .

Question Number : 140 Question Id : 5362284377 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements:

Statement I A genetic algorithm is a stochastic hill climbing search in which a large population of states is maintained

Statement II In nondeterministic environments, agents can apply AND OR search to generate contingent plans that reach the goal regardless of which outcomes occur during execution.

In the light of the above statements choose the Correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

- 53622817057 .
- 53622817058 .
- 53622817059 .
- 53622817060 .

Sub Section Number :

2

Sub-Section Id :

536228171

Question Shuffling Allowed :

Yes

Question Id : 5362284378 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

**Question Numbers : (141 to 145)**

**Question Label : Comprehension**

Questions 91-95 concern a disk with a sector size of 512 bytes, 2000 tracks per surface, 60 sectors per track, five double-sided platters, and average seek time of 10 milliseconds.

**Sub questions**

**Question Number : 141 Question Id : 5362284379 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

If  $T$  is the capacity of a track in bytes, and  $S$  is the capacity of each surface in bytes, then  $(T, S) =$  \_\_\_\_\_.

- |                     |                     |
|---------------------|---------------------|
| (1) (50 K, 50000 K) | (2) (25 K, 25000 K) |
| (3) (25 K, 50000 K) | (4) (40 K, 35000 K) |

**Options :**

53622817061 .

53622817062 2

53622817063 3

53622817064 4

**Question Number : 142 Question Id : 5362284380 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

What is the capacity of the disk, in bytes?

- |               |               |
|---------------|---------------|
| (1) 25,000 K  | (2) 500,000 K |
| (3) 250,000 K | (4) 50,000 K  |

**Options :**

53622817065 .

53622817066 2

53622817067 3

53622817068 4

**Question Number : 143 Question Id : 5362284381 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Given below are two statements

Statement I The disk has a total number of 2000 cylinders

Statement II 51200 bytes is not a valid block size for the disk

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

- 53622817069 1
- 53622817070 2
- 53622817071 3
- 53622817072 4

Question Number : 144 Question Id : 5362284382 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If the disk platters rotate at 5400 rpm (revolutions per minute) then approximately what is the maximum rotational delay?

- (1) 0.011 seconds
- (2) 0.11 seconds
- (3) 0.0011 seconds
- (4) 1.1 seconds

Options :

- 53622817073 1
- 53622817074 2
- 53622817075 3
- 53622817076 4

Question Number : 145 Question Id : 5362284383 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If one track of data can be transferred per revolution, then what is the data transfer rate?

- (1) 2.850 KBytes/second
- (2) 4.500 KBytes/second
- (3) 5.700 KBytes/second
- (4) 2.250 KBytes/second

Options :

- 53622817077 1
- 53622817078 2
- 53622817079 3
- 53622817080 4

Question Id : 5362284378 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group : Comprehension Questions : No

**Question Numbers : (141 to 145)**

**Question Label : Comprehension**

Questions 91-95 concern a disk with a sector size of 512 bytes, 2000 tracks per surface, 50 sectors per track, five double-sided platters, and average seek time of 10 milliseconds.

**Sub questions**

**Question Number : 141 Question Id : 5362284379 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

If  $T$  is the capacity of a track in bytes, and  $S$  is the capacity of each surface in bytes, then  $(T, S) =$  \_\_\_\_\_.

- |                     |                     |
|---------------------|---------------------|
| (1) (50 K, 50000 K) | (2) (25 K, 25000 K) |
| (3) (25 K, 50000 K) | (4) (40 K, 36000 K) |

**Options :**

53622817061 .

53622817062 2

53622817063 3

53622817064 4

**Question Number : 142 Question Id : 5362284380 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

What is the capacity of the disk, in bytes?

- |               |               |
|---------------|---------------|
| (1) 25,000 K  | (2) 500,000 K |
| (3) 250,000 K | (4) 50,000 K  |

**Options :**

53622817065 .

53622817066 2

53622817067 3

53622817068 4

**Question Number : 143 Question Id : 5362284381 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Given below are two statements

Statement I The disk has a total number of 2000 cylinders

Statement II 51200 bytes is not a valid block size for the disk

In the light of the above statements choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

Options :

53622817069 1

53622817070 2

53622817071 3

53622817072 4

Question Number : 144 Question Id : 5362284382 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If the disk platters rotate at 5400 rpm (revolutions per minute) then approximately what is the maximum rotational delay?

- (1) 0.011 seconds
- (2) 0.11 seconds
- (3) 0.0011 seconds
- (4) 1.1 seconds

Options :

53622817073 1

53622817074 2

53622817075 3

53622817076 4

Question Number : 145 Question Id : 5362284383 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If one track of data can be transferred per revolution, then what is the data transfer rate?

- (1) 2.850 KBytes/second
- (2) 4.500 KBytes/second
- (3) 5.700 KBytes/second
- (4) 2.250 KBytes/second

Options :

53622817077 1

53622817078 2

53622817079 3

53622817080 4

Sub-Section Number :

3

Sub-Section Id :

536228172

Question Shuffling Allowed :

Yes

Question Id 5362284384 Question Type : COMPREHENSION Sub Question Shuffling Allowed Yes Group  
Comprehension Questions : No  
Question Numbers : (146 to 150)  
Question Label Comprehension

Consider the following table structures related to a university for Q96 to Q100

**EMPLOYEE**

NAME	VARCHAR (30)	NOT NULL.
EID	VARCHAR (10)	NOT NULL.
DEPTNO	INT (5)	NOT NULL.
HODEID	VARCHAR (10),	
SALARY	INT (10),	

PRIMARY KEY (EID)

FOREIGN KEY (HODEID) REFERENCES EMPLOYEE (EID)

FOREIGN KEY (DEPTNO) REFERENCES DEPARTMENT (DID)

**DEPARTMENT**

DID	INT (5)	NOT NULL.
DNAME	VARCHAR (30)	NOT NULL.
HODID	VARCHAR (10)	NOT NULL.
HODNAME	VARCHAR (30)	

PRIMARY KEY (DID).

UNIQUE (DNAME)

FOREIGN KEY (HODID) REFERENCES EMPLOYEE (EID).

**PROJECT WORK.**

EMPID	VARCHAR (10)	NOT NULL.
PROJNO	INT (5)	NOT NULL.
PROJECTLOC	VARCHAR (30)	NOT NULL.

PRIMARY KEY (EMPID, PROJNO).

FOREIGN KEY (EMPID) REFERENCES EMPLOYEE (EID)

**Sub questions**

Question Number 146 Question Id 5362284385 Question Type MCQ Option Shuffling No Is Question  
Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

On the basis of above given table structures, retrieve the distinct employee ID (EMPID) of all employees of university who are working on project No.20, 30 and 40

- (1)     SELECT EMPID  
          FROM PROJECTWORK  
          WHERE PROJNO= (20,30,40)
- (2)     SELECT EMPID  
          FROM PROJECTWORK  
          WHFRE PROJNO IN (20,30,40):
- (3)     SELECT DISTINCT EMPID  
          FROM PROJECTWORK  
          WHERE PROJNO IN (20,30,40):
- (4)     SELECT DISTINCT EMPID  
          FROM PROJECTWORK  
          WHERE PROJNO= 20,30,40:

Options :

- 53622817081 .
- 53622817082 2
- 53622817083 3
- 53622817084 4

Question Number : 147 Question Id : 5362284386 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given below are two statements to find the sum of salaries of all employees of the English department as well as the maximum, minimum and average salary in English department

STATEMENT I     SELECT SUM (SALARY), MAX (SALARY), MIN (SALARY),  
                  AVG (SALARY) FROM EMPLOYEE, DEPARTMENT  
                  WHERE DEPTNO=10  
                  AND DNAME= 'ENGLISH'.

STATEMENT II    SELECT SUM (SALARY), MAX (SALARY), MIN (SALARY),  
                  AVG (SALARY) FROM EMPLOYEE, DEPARTMENT  
                  WHERE DNAME= 'ENGLISH'.

In the light of the above statements, choose the correct answer from the options given below

- (1)     Both Statement I and Statement II are true
- (2)     Both Statement I and Statement II are false
- (3)     Statement I is correct but Statement II is false
- (4)     Statement I is incorrect but Statement II is true

Options :

- 53622817085 .
- 53622817086 2
- 53622817087 3
- 53622817088 4

Question Number : 148 Question Id : 5362284387 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following query/queries return the employee ID and name of employees whose salary is greater than the salary of all employees in department number 20 of university. Order result by employee ID (refer table structures given above).

- (A)    SELECT EID, NAME  
       FROM EMPLOYEE  
       WHERE SALARY > (SELECT SALARY FROM EMPLOYEE WHERE DEPTNO= 20)  
       ORDER BY EID,
- (B)    SELECT EID, NAME  
       FROM EMPLOYEE WHERE SALARY > (SELECT SALARY FROM EMPLOYEE  
       WHERE DEPTNO= 20)
- (C)    SELECT EID, NAME  
       FROM EMPLOYEE  
       WHERE SALARY > ALL (SELECT SALARY FROM EMPLOYEE WHERE  
       DEPTNO= 20)  
       ORDER BY EID

Choose the correct answer from the options given below:

- (1)    A) and (B) only  
(2)    A) and (C) only  
(3)    (B) only  
(4)    (C) only

Options :

- 53622817089 :  
53622817090 : 2  
53622817091 : 3  
53622817092 : 4

Question Number : 149 Question Id : 5362284388 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0



In reference to the above given table structures, which of the following query queries will drop the SALARY column from EMPLOYEE' table"

- (A) ALTER TABLE EMPLOYEE DROP SALARY CASCADE.
- (B) ALTER TABLE EMPLOYEE DROP SALARY RESTRICT
- (C) ALTER EMPLOYEE DROP SALARY.

Choose the correct answer from the options given below

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A) only

Options :

- 53622817093 .
- 53622817094. 2
- 53622817095 3
- 53622817096 4

Question Number : 150 Question Id : 5362284389 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Refer table, structures given above. University decided to give all employees in the SCIENCE department a 20% rise in salary. Which of the following query/queries will compute the above results?

- (A) UPDATE EMPLOYEE  
SET SALARY = SALARY\*1.20  
WHERE DEPT NO IN (SELECT DID FROM DEPARTMENT WHERE  
DNAME= SCIENCE)
- (B) UPDATE TABLE EMPLOYEE  
SET SALARY = SALARY\*1.20  
WHERE DNAME='SCIENCE',
- (C) ALTER TABLE EMPLOYEE  
SET SALARY = SALARY\*1.20  
WHERE DEPTNO IN (SELECT DNAME FROM DEPARTMENT WHERE DNAME  
SCIENCE)

Choose the correct answer from the options given below.

- (1) (A) and (B) only
- (2) (A) only
- (3) (B) and (C) only
- (4) (C) only

Options :

53622817097 1

53622817098 2

53622817099 3

53622817 00 4

Question Id : 5362284384 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group  
Comprehension Questions : No

Question Numbers : (146 to 150)

Question Label : Comprehension

Consider the following table structures related to a university for Q96 to Q100

**EMPLOYEE**

NAME	VARCHAR (30)	NOT NULL.
EID	VARCHAR (10)	NOT NULL.
DEPTNO	INT (5)	NOT NULL.
HODEID	VARCHAR (10),	
SALARY	INT (10),	

PRIMARY KEY (EID)

FOREIGN KEY (HODEID) REFERENCES EMPLOYEE (EID)

FOREIGN KEY (DEPTNO) REFERENCES DEPARTMENT (DID)

**DEPARTMENT**

DID	INT (5)	NOT NULL.
DNAME	VARCHAR (30)	NOT NULL.
HODID	VARCHAR (10)	NOT NULL.
HODNAME	VARCHAR (30)	

PRIMARY KEY (DID),

UNIQUE (DNAME),

FOREIGN KEY (HODID) REFERENCES EMPLOYEE EID

**PROJECT WORK.**

EMPID	VARCHAR (10)	NOT NULL.
PROJNO	INT (5)	NOT NULL.
PROJECTLOC	VARCHAR (30)	NOT NULL.

PRIMARY KEY (EMPID, PROJNO),

FOREIGN KEY (EMPID) REFERENCES EMPLOYEE (EID)

**Sub questions**

Question Number : 146 Question Id : 5362284385 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

On the basis of above given table structures, retrieve the distinct employee ID (EMPID) of all employees of university who are working on project No.20, 30 and 40.

- (1) `SELECT EMPID  
FROM PROJECTWORK  
WHERE PROJNO=(20,30,40);`
- (2) `SELECT EMPID  
FROM PROJECTWORK  
WHERE PROJNO IN (20,30,40);`
- (3) `SELECT DISTINCT EMPID  
FROM PROJECTWORK  
WHERE PROJNO IN (20,30,40);`
- (4) `SELECT DISTINCT EMPID  
FROM PROJECTWORK  
WHERE PROJNO=20,30,40;`

**Options :**

- 53622817081. 1
- 53622817082. 2
- 53622817083. 3
- 53622817084. 4

**Question Number : 147 Question Id : 5362284386 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Given below are two statements to find the sum of salaries of all employees of the English department as well as the maximum, minimum and average salary in English department.

STATEMENT I : `SELECT SUM (SALARY), MAX (SALARY), MIN (SALARY),  
AVG (SALARY) FROM EMPLOYEE, DEPARTMENT  
WHERE DEPTNO=DID  
AND DNAME='ENGLISH';`

STATEMENT II : `SELECT SUM (SALARY), MAX (SALARY), MIN (SALARY),  
AVG (SALARY) FROM EMPLOYEE, DEPARTMENT  
WHERE DNAME='ENGLISH';`

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is correct but Statement II is false
- (4) Statement I is incorrect but Statement II is true

**Options :**

- 53622817085. 1
- 53622817086. 2
- 53622817087. 3
- 53622817088. 4

Question Number : 148 Question Id : 5362284387 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Downloaded FREE from KumarEdu.com

Which of the following query/queries return the employee ID and name of employees whose salary is greater than the salary of all employees in department number 20 of university. Order result by employee ID (refer table structures given above).

- (A) `SELECT EID, NAME  
FROM EMPLOYEE  
WHERE SALARY>(SELECT SALARY FROM EMPLOYEE WHERE DEPTNO=20)  
ORDER BY EID;`
- (B) `SELECT EID, NAME  
FROM EMPLOYEE WHERE SALARY>(SELECT SALARY FROM EMPLOYEE  
WHERE DEPTNO=20);`
- (C) `SELECT EID, NAME  
FROM EMPLOYEE  
WHERE SALARY>ALL(SELECT SALARY FROM EMPLOYEE WHERE  
DEPTNO=20)  
ORDER BY EID`

Choose the correct answer from the options given below:

- (1) (A) and (B) only  
(2) (A) and (C) only  
(3) (B) only  
(4) (C) only

 Kumar Education

Downloaded FREE from KumarEdu.com

Options :

53622817089. 1

53622817090. 2

53622817091. 3

53622817092. 4

Question Number : 149 Question Id : 5362284388 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

 Kumar Education

Downloaded FREE from KumarEdu.com

In reference to the above given table structures, which of the following query/queries will drop the 'SALARY' column from 'EMPLOYEE' table?

- (A) ALTER TABLE EMPLOYEE DROP SALARY CASCADE;
- (B) ALTER TABLE EMPLOYEE DROP SALARY RESTRICT;
- (C) ALTER EMPLOYEE DROP SALARY;

Choose the correct answer from the options given below:

- (1) (A) and (B) only
- (2) (A) and (C) only
- (3) (B) and (C) only
- (4) (A) only

Options :

53622817093. 1

53622817094. 2

53622817095. 3

53622817096. 4

Question Number : 150 Question Id : 5362284389 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Refer table structures given above. University decided to give all employees in the 'SCIENCE' department a 20% rise in salary. Which of the following query / queries will compute the above results?

- (A) UPDATE EMPLOYEE  
SET SALARY = SALARY\*1.20  
WHERE DEPT NO. IN (SELECT DID FROM DEPARTMENT WHERE  
DNAME='SCIENCE');
- (B) UPDATE TABLE EMPLOYEE  
SET SALARY = SALARY\*1.20  
WHERE DNAME='SCIENCE';
- (C) ALTER TABLE EMPLOYEE  
SET SALARY=SALARY\*1.20  
WHERE DEPTNO. IN (SELECT DNAME FROM DEPARTMENT WHERE DNAME  
='SCIENCE')

Choose the correct answer from the options given below:

- (1) (A) and (B) only  
(2) (A) only  
(3) (B) and (C) only  
(4) (C) only

Options :

53622817097. 1  
53622817098. 2  
53622817099. 3  
53622817100. 4